DRAFT ENVIRONMENTAL IMPACT ASSESSMENT AND

DRAFT ENVIRONMENTAL MANAGEMENT PLAN FOR

PROPOSED MINING OF SOAPSTONE

AT

VILLAGE: KARULI, TEHSIL & DISTRICT: BAGESHWAR, UTTARAKHAND AREA: 7.841 HA, PROPOSED CAPACITY: 24,000 TPA (MAXIMUM)

PROJECT PROPONENT

M/S STAR MINES AND MINERALS SMT JANKI RATHOR

Village – Karuli, Tehsil & DIST- Bageshwar (UTTRAKHAND)

PREPARED BY

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CHAPTER 1: INTRODUCTION

1.1 PURPOSE OF THE EIA REPORT

Environmental Impact Assessment (EIA) is one of the proven management tools for integrating environmental concerns in development process and for improved decision making as there is need to harmonize the developmental activities with the environmental concerns into the larger interest of the society. The growing awareness, over the years, on environmental protection and sustainable development, has given further emphasis to the implementation of sound environmental management practices for mitigating adverse impacts from developmental activities. EIA plays a vital role in sustainable development of a country. Recognizing its importance, the Ministry of Environment, Forest and Climate Change (MoEF&CC), Government of India has formulated policies and procedures governing the industrial and other developmental activities to prevent indiscriminate exploitation of natural resources and to promote integration of environmental concern in project development.

Draft Environmental Impact Assessment report has been prepared to comply with the proposed Terms of Reference (ToR), under EIA notification of the MoEF&CC dated 14th September, 2006 and amended thereof, for seeking environmental clearance for mining of soapstone in the applied mining lease area.

1.2 IDENTIFICATION OF PROJECT & PROJECT PROPONENT

The project is being proposed by M/s Star mines and mineral. The address of the proponent is given below:

M/s Star mines and Minerals

House no. 346/3, Kalawati Colony,

Haldwani, Distt. Nainital, Uttarakhand - 263139

The proponent has applied for environmental clearance for mining lease in the name of Soapstone (Agricultural Land) Mining Project over an area of 7.841 ha at Village- Karuli, Tehsil, District- Bageshwar, Uttarakhand.

1.3 BRIEF DESCRIPTION OF PROJECT

1.3.1 NATURE

The mining shall be carried out in two pits and will be done semi-mechanized way in open cast method in quite a systematic manner by forming upto 9m high benches with1.5m to 3.0m sub-benches. All the top soil, overburden & interburden shall be removed by the means of excavators. The slope of the faces will be kept 60°-70° and the ultimate slope of the pit will remain 45°. Mining shall be carried out from higher level & subsequently advance to upper levels.

1.3.2 SIZE

The mine lease area is 7.841 Ha. private Agricultural land on hill terrain and the project is contemplated to extracted the mineral (Soapstone) by manual open pit/cast method of mining without blasting.

1.3.3 LOCATION

The proposed lease of Soapstone Mine is situated at Village- Karuli, Tehsil, District - Bageshwar in the Uttarakhand State. The location and Salient feature of mining Lease area has been shown in **Table 1.1**. The location map of the mine lease area has been shown in **Figure 1.1**.

Sr. No.	Particular	Details
Α.	Nature of the Project	Soapstone Mining Project.
B.	Size of the Project	
1.	ML Area	7.841 Hectare (Private Agricultural Land).
2.	Proposed Production Capacity	Total Recoverable Quantity of Soapstone:
		24000 Tonnes (max) (As per approved Mining Scheme)
3.	Lease Period of Mine	Lease was granted for a period of 50 Years.
C.	Method of Mining	
1.	Method	Open-Cast Manual Mining
2.	Blasting / Drilling	Not proposed
D.	Project Location	
1.	Village	Karuli
2.	Tehsil	Bageshwar
3.	District	Bageshwar
4.	State	Uttarakhand
5.	Toposheet No.	53 O/13
6.	Lease Area Coordinates	Latitude 29°52'2.98" N to 29°52'15.41"N
		Longitude 79°49'39.48"E to 79°49'45.82"E
Ε.	Cost Details	
1.	Project Cost	Rs. 20 Lakhs
F.	Water Demand	
1.	Requirement	10 KLD
2.	Source of water	Nearby villages & Natural Springs (nalah)
G.	Man Power Requirement	59
H.	Environmental Setting	
1.	Nearest Village	Karuli, 500m (Aerial)
2.	Nearest Town	Bageshwar, 6 Km (aerial)
3.	Nearest National / State Highway	Bageshwar – Dofar - Dharamgarh Road, 0.2 Km

Table 1.1: Location and Salient feature of Mining Lease Area

4.	Nearest Railway Station	Kathgodam, 72 Km (Aerial)
5.	Nearest Airport	Pithoragarh, 49 Km (Aerial)
6.	Ecological Sensitive Areas (National Park, Wild Life Sanctuaries, Biosphere Reserve etc.) within 10 km radius	None
7.	Reserved / Protected Forest within 10 km radius	Karuli RF – 500 m
8.	Water bodies within 10 km radius of the mine site.	Pungar River, 1km (Aerial)
9.	Archaeological Important Place	None
10.	Seismic Zone	V

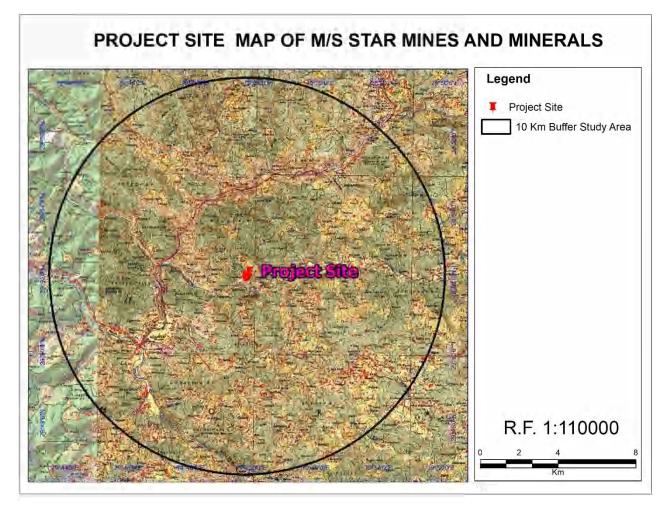


Figure 1.1: Location Map of the mine lease area

1.4 PROJECT'S IMPORTANCE TO THE COUNTRY AND THE REGION

Soapstone finds its use in many of the industries that include detergent & Paper industries etc. The natural available material in the quarry site has been found suitable from techno economic consideration. The mining project shall provide direct employment to about 71 persons. Additional jobs are created by way of transportation.

No subgrade mineral is produced from the mine. The soapstone is being dressed manually and transport to Haldwani. The final material will be utilized paper & cosmetic industries.

1.5 SCOPE OF THE STUDY

The SEAC in its meeting dated 3rd June 2021 examined the proposal. After through discussion and deliberation, it has been conveyed by SEAC that draft EIA/EMP report shall be prepared as per approved ToR and after public consultation through Uttarakhand Environment Protection and Pollution Control Board the final EIA/EMP report shall be submitted after incorporating Public Hearing details to SEIAA, Uttarakhand for Environmental Clearance.

1.6 POINT WISE COMPLIANCE

The present draft EIA/EMP report of the proposed project is prepared as per proposed TOR and in compliance with the ToR No.226/SEAC dated 15 June 2021 by State Level Expert Appraisal Committee, Dehradun. The copy of the ToR has been attached as **Annexure I**. The point wise compliance of ToR has been shown in **Table 1.2**:

Sr No.	ToR Points	Reference of Compliance
1.	Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994	The proposed soapstone mine is a new mine. Therefore the year wise production data since 1994 is not applicable.
2.	A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given	The copy of LOI is attached as Annexure II.
3.	All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee. The above reports should also match with the latest District Survey Report (DSR) notification no- 2827 dated 25 th July, 2018. Data obtained from this DSR should be incorporated in the EIA report for the impact identification, interpretation, prediction, carrying capacity and mitigation.	Complied.
4.	All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).	The study area map has been shown in Figure 1.1 of Chapter 1.

Table	1.2:	Point	Wise	Com	pliance	for	TOR
TUDIC		1 0111	11130	OOIII	phanee	101	101

5.	Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.	The land use map of the proposed project has been shown in Figure 3.7 of Chapter 3.
6.	Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.	The details have been have been described in Section 4.3 of Chapter 4.
7.	It should be clearly stated whether the proponent Company has a well laid down Environment. Policy approved by its Board of Directors? if so, it may be spelt out in the EIA report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/violation of the company to deal with the environmental and forest norms/ condition? The hierarchical system or administration order of the company to deal with environmental issues and for ensuring compliance with the EC condition may also be given. The system of reporting of non-compliance/violations of environmental norms to the Board of directors of the company and / or shareholders or stakeholders at large, may also be detailed in the EIA report.	Yes the details have been shown in Figure 6.1 of Chapter 6.
8.	Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.	Complied.
9.	The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.	Complied.
10.	Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.	The land use map of the proposed project has been shown in Figure 3.7 of Chapter 3.
11.	Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.	Provided in draft EIA/EMP Report.
12.	A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim	No forest land is involved in the proposed soapstone mine.

	by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.	department is in process.
13.	Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.	No forest land is involved in the proposed soapstone mine
14.	Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.	Not Applicable
15.	The Vegetation in the RF/PF areas in the study, with necessary details should be given.	
16.	A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.	No wildlife Sanctuary/National Park is situated within 10 km radius from the proposed soapstone mine.
17.	Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.	No wildlife Sanctuary/National Park is situated within 10 km radius from the proposed soapstone mine.
18.	A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled- I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of	The detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] has been described in section 3.11 of Chapter 3.

	the project cost.	
19.	Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.	Not Applicable
20.	R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.	Not Required.
21.	One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)]primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre- dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.	The details of Ambient Air Quality have been described in section 3.5 of Chapter 3.
22.	Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the	The Air quality modeling has been described in section 4.4 of Chapter 4.

	habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.	
23.	The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.	The details of Water requirement for the Project have been described in section 2.9 of Chapter 2.
24.	Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.	Not required.
25.	Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.	Not Applicable.
26.	Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.	The details have been described in section 4.2 of Chapter 4.
27.	Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.	Not Required.
28.	Details of any stream, seasonal or otherwise, passing through the lease area and modification/diversion proposed, if any, and the impact of the same on the hydrology should be brought out.	No streams, seasonal nallahs or river is passing through the proposed the soapstone mine.
29.	Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.	The details have been described in table 4.1 of Chapter 4
30.	A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the	The Greenbelt Development Plan have been described in section 9.9 of Chapter 9. The Greenbelt and Plantation have been described in section 4.7 of Chapter 4.

	species which are tolerant to pollution	
31.	species which are tolerant to pollution.	The impact on Troffic has have
	Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.	The impact on Traffic has been mentioned in section 4.13 of chapter 4.
32.	Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.	The temporary rest shelters and mobile toilets will be provided to the mine workers.
33.	Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.	The details have been described in section 4.1 of Chapter 4.
34.	Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre- placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.	The details have been described in section 4.10 of Chapter 4.
35.	Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.	Complied and Provided in EIA/EMP report
36.	Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.	The details have been described in section 4.9 of Chapter 4.
37.	Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.	The detailed Environmental Management Plan (EMP) has been described in Chapter 9.
38.	Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.	Complied.

39.	Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.	No court case is pending in any court against the proposed project.
40.	The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.	The budget of Environmental Management Plan has been presented in Table 9.3 of Chapter 9. The budget of CSR has been presented in Table 4.13 of Chapter 4. The budget of CER has been presented in Table 9.4 of Chapter 9.
41.	A Disaster management Plan shall be prepared and included in the EIA/EMP Report.	The detailed Disaster management Plan has been described in section 7.3 of Chapter 7.
42.	Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.	The detailed project benefits have been described in Chapter 8.
43.	Besides the above, the below mentioned general	points are also to be followed:-
(a)	Executive Summary of the EIA/EMP Report	Complied
(b)	All documents to be properly referenced with index and continuous page numbering.	Complied
(c)	Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.	Complied
(d)	Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.	Complied
(e)	Where the documents provided are in a language other than English, an English translation should be provided.	Complied
(f)	The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.	Complied
(g)	While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF&CC vide O.M. No. J- 11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.	Complied
(h)	Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public	Complied

Draft EIA/EMP

	Hearing changes in structure and content of the	
	draft EIA/EMP (other than modifications arising out	
	of the P.H. process) will entail conducting the PH	
	again with the revised documentation.	
(i)	As per the circular no. J-11011/618/2010-IA.II(I)	Complied
	dated 30.5.2012, certified report of the status of	
	compliance of the conditions stipulated in the	
	environment clearance for the existing operations of	
	the project, should be obtained from the Regional	
	Office of Ministry of Environment, Forest and	
	Climate Change, as may be applicable.	
	The EIA report should also include (i) surface plan	
	of the area indicating contours of main topographic	
	features, drainage and mining area, (ii) geological	
	maps and sections and (iii) sections of the mine pit	
	and external dumps, if any, clearly showing the land	
	features of the adjoining area.	
(j) Note:		
1)	The study area shall comprise of radial distance of	Complied
	10 KM from the project site and the study period is	
	three months. The impact on each of the above	
	parameter as a result of mining shall be assessed	
	through appropriate modeling and prediction	
	methods considering base line data.	
2)	District Survey Report should be submitted as per	Complied
	the latest notification no- 2827 dated- 25-7-2018	

CHAPTER 2: PROJECT DESCRIPTION

2.1 TYPE OF PROJECT

The project is proposed for the excavation of soapstone from the Hill slope (Agricultural land). It is an opencast mining project where the entire activity will be done in a semimechanized way.

2.2 NEED FOR THE PROJECT

The project site lies on hill slope which is agricultural land. With the rapidly increasing demand of Soapstone raw materials, The Industry's demand for fine powder is continuously prompting technological advancements to meet this purpose. The pulverize /hammer mills developed and manufactured in India are capable of producing up to 700 mesh powder. The world market prefers fine powder which can be produced by adopting new processing techniques like micronizing and sterilization of the product. Talc, in pulverized form, is mostly used as filler in paper, textile, rubber, insecticides and fertilizer industries. Pure talc after calcining, called 'Lava' is used in the manufacture of low-loss ceramic materials essential for radio, radar television, etc. In roofing products, such as, tar paper, asphalt shingles and roll roofing, talc acts as a fire retardant and increases weather resistance. Body and face powders (talcum powder) are prepared from the finest quality talc after adding deodorant and perfumes.

Talc is used mostly in pulverized form as a filler and extender in various industries. The nonpulverized talc is used in refractory, etc. Total reported consumption of talc/steatite/ soapstone in the organized sector was at 368 thousand tones in 2012-13. About 56% consumption in 2012-13, was in Paper Industry, followed by Paint (20%), Pesticide (11%), Ceramic (8%) and Cosmetic (4%) industries. Nominal consumption was shared by Fertilizer, Rubber, Textile, Chemicals and other industries.

The demand in the domestic market is high for Soapstone. The Industry's demand for fine powder is continuously prompting technological advancements to meet this purpose. Mineral is available in abundant quantity in area and can be extracted indigenously. The proposed mining activity is for indigenous consumption only for Pharmaceutical Industry, Cosmetic Industry, Textile, Ceramic, Paint, Rubber, Plastic, Detergent etc.

2.3 LOCATION DETAILS

The proposed lease of Soapstone Mine is situated at Village- Kabhata, Tehsil — Kanda, District - Bageshwar in the Uttarakhand State. The lease co-ordinates and connectivity details are listed below:

titude °52'2.98" N to 29°52'15.41"N

ngitude °49'39.48"E to 79°49'45.82"E

The lease is well connected to metaled road Bageshwar – Dofar - Dharamgarh which is at a distance of approx. 0.2 km from the mine lease area.

The index map of the project site has been shown in Figure 2.1.

2.3.1 Lease Hold Area

The lease hold area of 7.841 ha lies on the hill slope. The lease has been intended to allot vide Letter of intent (LoI) no. 1130/VII-A-1/2020/1(4)/20 Soapstone/17 dated 20/11/2020. The copy of Letter of Intent (LOI) has been attached as **Annexure II**.

2.3.2 Details of the Lease Hold Area

19.879 ha area has been granted out of 28.264 ha and only 7.841ha area has been demarcated out of 19.879 ha area. Details of land use of applied area are tabulated below.

Forest		Non- Forest		
			Area (ha)	
prest (specify)	None	Category 1(d) Jotdar land State Govt/ Civil. Land	6.584	
		Land under Category 7(d)	0.425	
		Category 9(3)M Land for public use	0.658	
		Land under Category 10(1)	0.157	
		Land under Category 10(2)	0.017	
		Total	7.841	

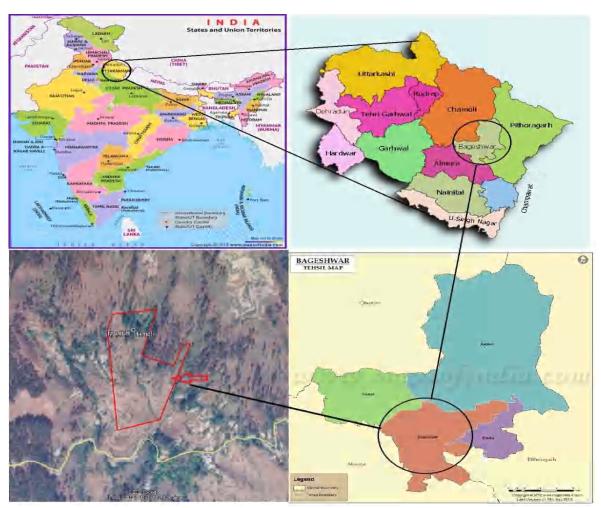


Fig 2.1: Index map of the project site

2.4 TOPOGRAPHY & GEOLOGY

<u>Topography</u>

Bageshwar district comprises two broad physiographic divisions from north to south viz. Central Himalayan Zone (north of the Main Central Thrust) and Lesser Himalayan Zone (south of the Main Central Thrust). The area shows an extremely rugged topography characterized by precipitous hills and deep gorges with sharp variation of high magnitude in surface relief. The general slope is towards south. In the northern parts the elevation of the land surface ranges from about 3000 m to 6861 m above mean sea level whereas in the valleys of southern part, the altitude is as low as 795 m. The soils of Bageshwar district can be broadly classified into two types, viz. Soils of Lesser Himalaya and Soils of Greater or Central Himalaya. Majority of the area is covered by the first type. The soils in this area are exposed in massive mountainous tracts and tangled mass of series of ridges divided from each other by deep, narrow valleys. The soils of Lesser Himalaya are further subdivided into a) Soils of Summits and Ridge tops, b) Soils of Side Slopes, c) Soils of Glacio-Fluvial Valleys, d) Soils of Fluvial Valleys and e) Soils of Cliffs. The soils of Greater Himalaya have been broadly classified under a) Soils of Summits, Ridge Tops and Mountain Glaciers, b) Soils of Side Slopes, c) Soils of Upper Glacio-Fluvial Valleys and d) Soils of Cliffs.

M/s Star Mines and minerals: Mining of Karuli shopstone and mine	Draft EIA/EMP
soapstone from Lease Area (7.841 ha.) at Village - Karuli, Tehsil & District	
Bageshwar, State Uttarakhand	

This area lies on southern slope of a hill in a mountainous terrain of rough and rugged topography. The adjacent area is drained by three seasonal Rollis/Nalas. The applied area forms a transverse ridge of ending southern slope in the valley. The area has sloppy undulating surface and at places flat gentle sloping cultivated land also. The highest RL is about 1210.4m on the northern side of the applied area, while the lowest RL recorded on the southern side of the applied area is about 1102.1m. General slope of the lease area is 10° - 30° in southern direction.

<u>Geology</u>

District Bageshwar is mainly represented by the rocks of Lesser Himalaya and Central Himalaya. The geological set up is very complex due to the repeated tectonic disturbances caused by different orogenic cycles. Valdiya (1980) carried out extensive geological and structural mapping in the area. The salient features of geology are depicted in the geological map of Bageshwar district. The map is based on Geological Survey of India, 2002.

The rock units exposed in various parts of Bageshwar district comprise current-bedded quartzite with associated volcanics, mica-talc schist, limestone, conglomerate, slate, quartzite, granodiorite, augen gneiss, migmatite and granite gneiss. Many areas in the northern part of the district are yet to be mapped by conventional field methods due to inaccessibility and permanent snow cover. However, a group of regionally metamorphosed rocks known as the Central Crystallines are exposed in this area. The Central Crystallines of the Central Himalayan Zone occur as thrust sheets over the metasedimentary and sedimentary rocks of Lesser Himalayan Zone in varied tectonic settings. Major rock types of Central Crystallines are migmatites, psammitic and mica gneiss, calc gneiss, quartzite, marble, mica schist and amphibolite. Granites of different ages ranging from Paleoproterozoic to Mesozoic-Tertiary intrude the Central Crystallines. Major parts of Bageshwar district falls under the geotectonic zone known as the Lesser Himalaya. Rock types in the Lesser Himalayan Zone include sedimentaries, metasedimentaries and plutonic igneous rocks. The various rock units have suffered multiple phases of deformation and metamorphism in major parts of the district.

The area forms the part of Cale zone of Tejam and Pithoragarh. According to Prof. K.S. Valdiya (Geology of Lesser Himalaya, 1980) and D. K. Banerjee et. al. 1975) the lithostratigraphic sequence of this area is as follow:

e -	Group/ Formation	Lithology
art on	Berinag Formation	
$\tilde{\mathbf{N}} \cdot \mathbf{H}$		Unconformity
Pithoragarh Formation	intercalations	Gangolihat magnesite Magnesite, dolomitic soapstone with algal structures. Magnesite with talcose phyllite
		Unconformity
	Sor Slate	Slate, Phyllite, subgrawake

In this region, rocks of Pithoragarh Formation occur. The development of algal stromatolite in carbonates occurrence or magnesite is a common associate of the carbonates. The Calc- Zone rock units are well known for their structural dispositions (windows, half windows in Lesser Kumaon Himalaya) for stromatolites and minerals (magnesite, dolomite, soapstone and minor metallic occurrences).

Local Geology:

Alluvial Cover:

The applied area lies in the village Karuli which is located almost on south-western sloping part of small hill. Both overburden and outcrops of soapstone are present in exploratory opening, magnesite boulders occur on the surface as well as intermixed with soapstone in the applied area. The lithounits found in the project area are:

Overburden:

Almost whole block of the applied area is covered with overburden material. This overburden comprises grey to brown to dark brown, fine to medium grained silty-clayey soil. Small fragments of soapstone and magnesite are also present in this soil. Thickness of this overburden varies from 0.9 to 1.5 m.

Soapstone bearing with Magnesite:

Intermixing of soapstone $[Mg_3Si_4O_{10}(OH)_2]$ with magnesite occur below the soil cover. Mostly this soapstone or talc is highly prone to easy weathering and erosion due to its softness and thus its outcrops are rare. In shallow depth soapstone is massive to highly bedding and shows brightness/whiteness characteristic which generally varies from medium to high. At places talc pockets are crushed and crumbled due to association with shear zones present in the area. In the applied area soapstone is fine grained, off-white to white, foliated and sometimes powdery due to crushing. In specimens or fragments it shows flexibility in edges due to thinness and trimming. Overburden comprises magnesite boulders intermixed with soapstone. This intermixed magnesite boulders in soapstone are about 60%.

Source: Approved Mining plan

2.5 CLIMATE

The climate in Bageshwar district is temperate to sub-humid. The northern part of the district experiences sub-zero temperature almost throughout the year whereas the central and southern parts are comparatively warm and humid. Severe winter is the chief climatic feature in the district. In general, the district experiences a tropical to subtropical and sub-humid climate except for the northern part where a cold temperate climate prevails.

2.5.1 Temperature, Relative Humidity and Wind

January is the coldest month with mean maximum temperature of 10°C, the mean minimum temperature being about 2°C. Temperature drops down to -6°C during January and February in the northern part of the district. June is the warmest month with the mean maximum and the mean minimum temperatures of 25°C and 15°C respectively. The maximum temperature recorded in the district was 43°C (May 2020) whereas the minimum temperature recorded was 4°C (January 2020).

The Relative Humidity increases rapidly with the onset of monsoon and reaches at about 80% during July to September. The driest part of the year is the pre-monsoon period, when the humidity is as low as 30% in the afternoons. Skies are heavily clouded during the monsoon months and for short spells when the district is affected by Western Disturbances. Two broad

wind patterns are observed in the district viz. north easterly to easterly (May to September) and south easterly to westerly (October to March).

2.5.2 Rainfall

Most of the rainfall, about 75% of the annual value, occurs during monsoon months of June to September. July is the rainiest month followed by August. In September, depressions from Bay of Bengal occasionally reach Uttarakhand and affect the weather of Bageshwar district also. This phenomenon may cause heavy rains. With the withdrawal of monsoon in September, the intensity of rainfall rapidly decreases. The decrease continues till November, which is a practically rainless month. Winter precipitation is associated with the passage of the Western Disturbances and is in the form of snowfall over higher elevations. The monthly and annual normal rainfall data of Kausani Rain Gauge Station for the period 1997-2002 shows that the annual rainfall ranges from 1051 to 1705 mm and the Annual Average Rainfall is 1331.4 mm. The monthly rainfall data from the rain gauge station also reveals that the maximum rainfall (460.4 mm) was received in July 2001 whereas the minimum rainfall (355.8 mm) was observed in June 2000.

2.6 SURFACE DRAINAGE PATTERN

Drainage of the area is mainly controlled by Saryu, Gomti and Pindar Rivers and their tributaries (locally called Nadi, Gad or Gadhera) viz. Pungar Nadi, Khir Ganga Nadi, Bhadrapati Nadi, Revti Ganga, Kanal Gad, Lahor Nadi, Jagtana Gad, Kulur Gad, Sukunda Gad etc. Sub-trellis, sub-rectangular and sub-dendritic are the most common drainage patterns in the area. The Central and North-Central parts of the district are drained by Saryu River. Gomti River drains the western and south eastern parts whereas Pindar River drains the northern part. These rivers are primarily fed by snowmelt with relatively smaller contribution from ground water. However, during the lean period, the rivers are fed by ground water occurring as base flow. An area is drained by three nalas within the lease flowing almost north to south directions in the applied area. The surface drainage pattern map is shown in **Figure 2.2**.

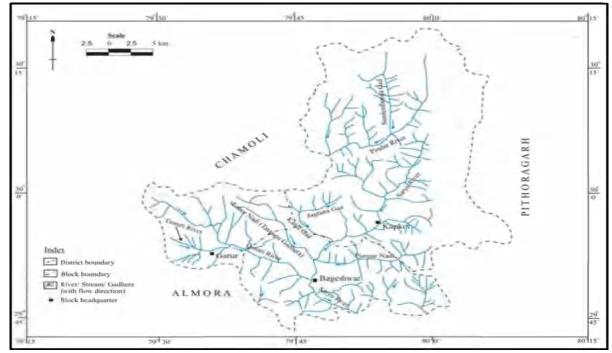


Figure 2.2: Surface Drainage Map

2.7 PROPOSED METHOD OF MINING

Excavator shall be deployed for the removal of overburden & interburden. Soapstone is soft mineral therefore no drilling & blasting shall be required. No further beneficiation will be required except breaking & sorting. From road side the soapstone bags will be loaded into trucks through manually and transported to Haldwani The salient points of proposed method of mining are given below:-

- The mining will be done semi-mechanized way in open cast method in quite a systematic manner by forming upto 9 m high benches with 1.5m to 3.0m sub-benches. However, there may be minor variation in the width and height which the lessee will keep on mending.

- The top soil and interburden to be scrapped with the help of JCB machine, dozer, shovels, pickaxe, spade & crowbar and will be stacked separately in dump yard located near the working pit.

- The extracted mineral is properly sorted out at the mine site. Crow bars are sometimes used to dislodge the mineral.

- The excavation for soapstone will be made through JCB Machine, dozer, shovels, pickaxe, spade & crowbar.

 It is proposed to make 5m to 9.0m height benches which will be sliced in three stages each of 3.0m height with 1.5m height sub benches.

- The slope of the faces will be kept 60° - 70° and the ultimate slope of the pit will remain 45° .

- Developmental work will be done by construction of road/track to different working benches, removal of top soil and interburden.

- The soil will be filled into the bags, loaded on mules and unload into stockyard.

- The interburden generated during mining will be separately stacked and places shown within the applied area which will be backfilled.

- Sorting of high grade soapstone will be done on the benches by the labourers and it will be graded.

- The local people will be used for removal of mineral to the nearest road point from where the minerals will be transported by trucks to Haldwani.

- The mineral will be loaded over the trucks by the manual labour. The pit will be connected by track/foot path to the main road.

- The slope of track may vary from 1:8 to 1:20.

– Each mining face will be connected by track/road having width 3.0m.

Exploitation of soapstone is small scale of mining and does not require any drilling & blasting.

- The average rate of production of soapstone is estimated in between 20000 to 24000 tonnes from I year to V year.

- Proper precautionary measures shall be taken to prevent soil erosion.

- The recovery of the soapstone will be 40% of the total excavation.

- Office, store, first aid centre, drinking water shed, rest shelter etc. will be constructed temporarily within the applied area.

The mining is confined in the applied area and mining benches of the pit will be backfilled to retain its original topography therefore the efforts for afforestation would be done inside the applied area in between lease boundary and UPL, about 0.495 area will be covered by

2295 saplings upto five year. Upto lease period 21056 saplings will be done in *Van Panchayat* and forest land after taking due permission from concerning authority.

- -The top soil and interburden are stacked separately in dump yard within the applied area and will be used for reclamation of the pit after exploitation of the mineral.
- -Mining operations shall be carried out scientifically by following the provisions of Mining and Minerals (Development & Regulation) Act, 2015, MCDR Notification 2017, Uttarakhand, Metalliferrous Mines Regulations (MMR) 1961, UKMMCR 2001 and time to time directions/amendment given by Geology & Mining Unit & State Government will growth generated on such boundary to isolate mining from rest of the area not be over looked at any stage.
- -7.5 m un-mined barrier will be maintained all along the lease boundary and vegetation
- -Exploitation of the soapstone will not be done in land for public use.

It will be open cast mechanized mine. Due to the scarcity of workers it is not possible to carry out mining operation systematically & scientifically through the formation of benches. Therefore lessee has left no option but to deploy an excavator for systematic & scientific mining, conservation of mineral & protection of environment. It has been revealed from past mining experience that average recovery of waste rock / boulders is around 60% of total ROM. The rock formation is hard & rock breaker may be deployed for the removal of hard strata. Lessee intends to set up small crusher unit so that waste rock/ boulders shall be utilised for making aggregates. If waste material is used for making aggregates, the problem is disposal of waste shall be solved & govt. will earn revenue. Chemical analysis of soapstone and waste material can be carried out from Laboratory of Directorate of Geology & Mining, Bhopalpani, Dehradun.

Extraction & management of minerals has to be guided by long- term national goals & perspective & integrated into the overall strategy of the country's economic development. Mining technology will be upgraded to ensure extraction & utilisation of entire Run of Mines (ROM). There shall be an adequate & effective legal & institutional framework promoting zero waste mining as the ultimate goal & commitment to prevent sub-optimal & unscientific mining.

Mining shall be carried out from higher level & subsequently advance to upper levels. As soon as mining pits reach its maximum economical depth backfilling shall be commenced from lower level to restore the maximum original topography of the area. This is common practice of soapstone mining in Kumaon Himalayas. Backfilling in both the pits shall commenced from first year onwards to restore the mined out pit to its maximum original topography. The average depression will be 2.0m with respect to its original topography.

2.8 RESERVE (AVAILABLE QUANTUM) AND PRODUCTION (EXTRACTABLE QUANTUM)

Economic Axis (EI):

(i) Due to mining surrounding area & past exploration within area, it has been revealed that the mineral is good grade & having no problem in selling in the market. Mineral shall be transported manually as well as mules up to road side & loaded in to truck. NOC from individual land owners have been obtained. On this basis economic viability of the deposit has been established & mineral is economically viable. Hence economic axis under UNFC for the deposit is E=1.

- (ii) Specific end use grade of reserve established. The reserves of soapstone with applied area are cosmetic, paper & detergent grade.
- (iii) Specific knowledge of own forest & other land use data is available. The applied area is totally agricultural land & after mining it shall be backfilled, leveled it & put use for agriculture.

Feasibility axis: As this is small opencast semi-mechanized mine. The feasibility study carried out for this area and is considered to be pre-feasibility status. Hence pre-feasibility axis under UNFC for the deposit is F=I.

Geology: Due to past exploration within area, local geology, mineralogy & geometry of soapstone deposit has been established. The identification of ore body carried out & only soapstone was formed to be occurred within applied area.

Geological Axis:

(G-I) Actual exploration in vicinity of applied area has been established by way of mining pits. Therefore geological axis has been considered under G 1.

- (i) Geological Survey: Mapping in the scale of 1:1000 will triangulation point & bench marks carried out & shown in surface geological plan. Extensive pitting in surrounding area has been done & nature of deposition of soapstone has been established.
- ii) Linking of map with topo grid carried & latitude & longitude of corner pillar token,
- iii) Assessment of lithology carried out based on the exposures in the pit of soapstone, structure & surface mineralization studied & mapped.
- 2. Geo chemical survey: Detailed sampling of pit.

3. Geophysical survey: Geophysical survey was carried was carried out on the basis of exposure & outcrops. Based on the exploration & exposure in the pit, the mineralization zone delineated,

4. Technological: Extensive pitting at the time of prospecting period was carried out within the applied area. The depth of pit varies 3m to 6m. The deposit is regular with low dip.

Surface & subsurface lithology & co-relation of mineralization zones carried out by pitting & sampling carried out from pit faces.

Parameters for Estimation:

- The cross section area of each section line has been calculated for each category of reserves. The cross sectional area is multiplied by the strike influence to get the volume. The volume is multiplied by the bulk density to get the tonnage in each section line.
- 2. Bulk density of soapstone has been assumed 2.6 III view of our past experience in and around the area.

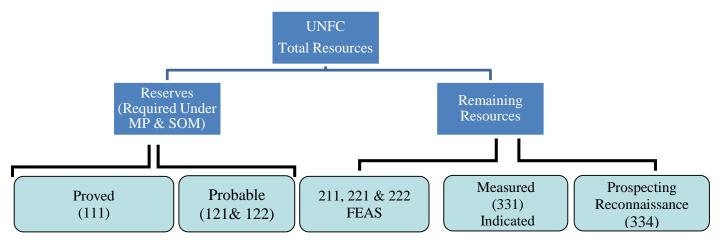
- 3. Bulk density of interburden (Magnesite) has been assumed 2.5 in view of our past experience in the area.
- 4. Recovery of interburden (Magnesite) has been taken as 70% of the total excavation as per the past experience with in the area & on the basis of prospecting carried out within applied area.
- 5. Due to past mining surrounding of applied area, it has been revealed that incidence of soapstone in different pits varies 20% to 40%, therefore on an average incidence of soapstone has been considered 30% of total excavation.

2.9. Mineral Reserves/Resources As per UNFC classification:

i)Details of UNFC Classification:

UNFC is three digit code based system, the economic viability axis representing the first digit, the feasibility axis the second digit & geological axis the third digit.

Codes 1, 2 & 3 in decreasing order. The heights category of resources under UNFC system has code (111) & for the lowest category the code is (334).



Code (111): This code is provided for the economically mineable part of the measured mineral resources (Proved category reserves).

Code (121, 122): This code is provided for the economically mineable past of the (333) indicated mineral resources (Probable category reserves).

Code (211): This part of the measured mineral resources (Proved Category), which as per feasibility study has not found economically mineable. The reserves blocked in 7.5m buffer zone of the distances restriction from permanent structure.

Code (222): The part of indicated mineral resources (probable category) which has pre feasibility study has not found economically mineable. The reserves blocked 7.5m buffer zone & distances restricted from permanent structure.

Code (333): Tonnage, grade & mineral contents can be estimated with low level of confidence & resources are also inferred from geological part.

The mineral reserves/resources calculated within lease area are as below:-

Category	UNFC Code	Quantity in tonnes	Grade
A. Total Mineral Reserve			
Proved Mineral Reserve	111	565146.14	Paper & Detergent
Probable mineral Resource	121 & 122	304536.96	Paper & Detergent
B. Total Remaining Resources		0	
Feasibility mineral Resource	211	133705.47	Paper & Detergent
Prefeasibility mineral resource	221 & 222	160521.27	Paper & Detergent
Measured mineral resource	331	Nil	Nil
Indicated mineral resource	332	Nil	Nil
Inferred mineral resource	333	134881.22	Paper & Detergent
Reconnaissance mineral	334	Nil	Nil
resource			
Total Reserves + Resources		12,98,791.06	

Table 2.1 : Details calculation of reserve & resources

Proved Geological Reserves

Section	Area (m²)	Strike Influence (m)	Volume (Cum)	Mineable Reserves (in Tonnes)	Blocked Reserves (in Tonnes)	Total Reserves (in Tonnes)
LB to A-A'	1695.31	21.53	36493.81	37953.57	7458.05	45411.61
A-A' to B-B'	2119.137	40.18	85148.81	88554.76	17401.41	105956.17
B-B' to C-C'	1758.14	49.17	86441.09	89898.74	19488.06	109386.79
C-C' to D-D"	2117.61	47.90	101438.77	105496.32	19591.00	125087.31
D-D' to E-E'	1515.60	41.82	63386.81	65922.28	14925.41	80847.69
E-E' to F-F'	1794.05	34.81	62457.61	64955.91	19435.91	84391.82
F-F' to G-G'	1323.52	35.80	47376.81	49271.88	17121.70	66393.58
G-G' to H-H'	1243.40	36.19	44997.12	46797.00	10681.60	57478.60
H-H' to LB			15668.93	16295.69	7602.35	23898.03
	14204.82		543409.75	565146.14	133705.47	698851.61

Probable Geological Reserves

Section	Area (m2)	Strike Influence (m)	Volume (Cum)	Mineable Reserves (in Tonnes)	Blocked Reserves (in Tonnes)	Total Reserves (in Tonnes)
LB to A-A'	929.84	21.53	20015.99	20816.62	9386.91	30203.53
A-A' to B-B'	1162.30	40.18	46702.09	48570.17	21901.91	70472.08
B-B' to C-C'	950.46	49.17	46730.48	48599.70	24195.87	72795.57
C-C' to D-D"	1191.39	47.90	57070.41	59353.23	23995.45	83348.68

D-D' to E-E'	813.95	41.82	34041.57	35403.23	18451.75	53854.98
E-E' to F-F'	926.86	34.81	32267.28	33557.97	22466.37	56024.34
F-F' to G-G'	652.97	35.80	23373.86	24308.82	19859.55	44168.37
G-G' to H-H'	709.71	36.19	25683.43	26710.77	11586.38	38297.15
H-H' to LB	282.56	24.56	6938.89	7216.44	8677.07	15893.52
	7620.02		292824.00	304536.96	160521.27	465058.22

Blocked Reserves of Soapstone Feasibility mineral Resource (211)

	Section .	Area (m²)		Volume	e (Cum)	Blocked Reserves (Tonnes)		
Section Line	Blocked in (UPL)	Blocked Under 45°	Strike Influence (m)	Blocked in (UPL)	Blocked Under 45°	Blocked in (UPL)	Blocked Under 45°	
LB to A-A'	155.04	178.10	21.53	3337.34	3833.859	3470.83	3987.21	
A-A' to B-B'	193.79	222.63	40.18	7786.82	8945.311	8098.29	9303.12	
B-B' to C-C'	181.05	200.08	49.17	8901.51	9837.002	9257.58	10230.48	
C-C' to D-D"	175.56	217.68	47.90	8409.90	10427.6	8746.29	10844.70	
D-D' to E-E'	179.12	164.03	41.82	7491.23	6860.124	7790.88	7134.53	
E-E' to F-F'	208.91	327.90	34.81	7273.00	11415.37	7563.92	11871.99	
F-F' to G-G'	197.41	262.50	35.80	7066.55	9396.624	7349.21	9772.49	
G-G' to H-H'	191.28	92.53	36.19	6922.07	3348.703	7198.95	3482.65	
H-H' to LB	192.96	104.71	24.56	4738.61	2571.337	4928.15	2674.19	
Total	1675.12	1770.16		61927.02	66635.93	64404.10	69301.37	

Pre-Feasibility mineral Resource (222)

	Sectio	on Area		Volum	e (Cum)	Blocked Reserves (Tonnes)		
section Line	Blocked Blocked in (UPL) Under 45°		Strike Influence	Blocked in (UPL)	Blocked Under 45°	Blocked in (UPL)	Blocked Under 45°	
LB to A-A'	102.93	316.36	21.53	2215.73	6810.1425	2304.36	7082.55	
A-A' to B-B'	128.66	395.45	40.18	5169.83	15889.693	5376.63	16525.28	
B-B' to C-C'	121.06	352.14	49.17	5951.83	17313.431	6189.90	18005.97	
C-C' to D-D"	117.55	364.11	47.90	5630.93	17441.619	5856.17	18139.28	
D-D' to E-E'	119.58	304.64	41.82	5001.06	12741.008	5201.10	13250.65	
E-E' to F-F'	139.10	481.41	34.81	4842.69	16759.59	5036.40	17429.97	
F-F' to G-G'	132.91	400.55	35.80	4757.73	14337.992	4948.04	14911.51	
G-G' to H-H'	128.01	179.84	36.19	4632.47	6508.2819	4817.77	6768.61	
H-H' to LB	128.82	210.93	24.56	3163.39	5179.9525	3289.92	5387.15	
Total	1118.62	3005.44		41365.66	112981.71	43020.29	117500.98	

Production

The year wise production schedule, quantities of waste to be generated from different benches in each pit is shown in **Table 2.2.**

M/s Star Mines and minerals: Mining of Karuli shopstone and mine	Draft EIA/EMP
soapstone from Lease Area (7.841 ha.) at Village - Karuli, Tehsil & District	
Bageshwar, State Uttarakhand	

Table 2.2: Details of the production (Year wise)

I Year (2020 –2021): Pit -1

	Pit - I													
Benc (m		Face Length	Face Advanc ement	Bench Width	Bench Height	Volume	ROM Soapston e (Tonne)	• • •	Balance producti on (Tonne)	Soil (cum)	Interbur den (cum)			
1133	1127	139.0 0	13.88	3.00	6.00	11575.92	9569.43	9569.43	0.00	1929.3 2	10418.3 3			
1130			14.09	3.00	7.00	13019.16	11084.88	10430.57	654.31	1859.8 8	11200.6 1			
						24595.08	20654.31	20000.00	654.31	3789.2 0	21618.9 4			

II Year (2021 –2022): Pit -1

	:h RL n)	Face Length	Face Advance ment		Bench Height		ROM Soapstone (Tonne)	Product ion (Tonne)	Balance producti on (Tonne)	Soil (cum)	Interb urden (cum)
1130	1123	132.00	14.09	3.00	7.00	13709.57	654.31	654.31	0.00	0	661.15
1127	1120	135.00	13.70	3.00	7.00	12946.50	11023.02	11023.02	0.00	1849.50	11836.8 0
1124	1118	158.00	16.01	3.00	6.00	15177.48	12546.72	12322.67	224.05	2529.58	13415.8 1
						41833.55	24224.05	24000.00	224.05	4379.08	25913.7 6

III Year (2022 - 2023): Pit -1

Bench	n RL (m)	Face Length	Face Advanc ement	Bench		Volume	ROM Soapstone (Tonne)	-	Balance product ion (Tonne)	Soil	Interburde n (cum)
1124	1118	158.00	16.01	3.00		15177.48	. ,	224.05	0.00	0	239.57
1121	1115	164.00	19.92	3.00	6.00	19601.28	16203.72	16203.72	0.00	3266.88	17641.15
1118	1113	137.00	14.78	3.00	5.00	10124.30	8018.45	7572.23	446.22	2024.86	8413.59
						44903.06	24446.22	24000.00	446.22	5291.74	26294.31

IV Year (2023 – 2024): Pit - 2

	ch RL m)	Face Length	Face Advanc ement	Bench		Volume	ROM Soapstone (Tonne)		Balance product ion (Tonne)	Soil (cum)	Interburde n (cum)
1187	1179	103.00	4.10	3.00	8.00	3378.40	2939.21	2939.21	0.00	422.30	3125.02
1184	1176	111.00	3.95	3.00	8.00	3507.60	3051.61	3051.61	0.00	438.45	3244.53
1181	1173	110.00	4.00	3.00	8.00	3520.00	3062.40	3062.40	0.00	440.00	3256.00
1178	1170	109.00	4.86	3.00	8.00	4237.92	3686.99	3686.99	0.00	529.74	3920.08
1175	1167	227.00	6.89	3.00	8.00	12512.24	10885.65	10259.79	625.86	1564.03	10908.40
						27156.16	23625.86	23000.00	625.86	3394.52	24454.03

V Year (2023 – Dec. 2024): Pit -2

-	ch RL m)	Face Length	Face Advanc ement	Bench		Volume	ROM Soapstone (Tonne)		Balance product ion (Tonne)	Soil (cum)	Interburde n (cum)
1175	1167	227.00	6.89	3.00	8.00	12512.24	625.86	625.86	0.00	0	627.17
1172	1164	109.00	6.83	3.00	8.00	5955.76	5181.51	5181.51	0.00	744.47	5509.08
1169	1161	111.00	6.61	3.00	8.00	5869.68	5106.62	5106.62	0.00	733.71	5429.45
1166	1157	115.00	6.43	3.00	9.00	6655.05	5886.02	5886.02	0.00	739.45	6211.38
1163	1154	119.00	6.75	3.00	9.00	7229.25	6393.87	6199.99	193.88	803.25	6542.70
						38221.98	23193.88	23000.00	193.88	3020.88	24319.78

Production

The year wish quantities of soapstone to be generated from different pits is as below-

Year	ROM (Tonnes)
1 st Year	20000
2 nd Year	24000
3 rd year	24000
4 th Year	23000
5 th Year	23000
Total	114000

Man Power Requirement:

The mine manager cum mining engineer should be a graduate mining engineer holding at least second class manager's certificate. The mate-cum-blaster should hold mining mate certificate of competency. Owing to the topography of the area, which is a rough terrain, Soap Stone mining activity is needed as the primary source of income for the locals. The mine will provide employment to about 59 workers. It will provide employment to the people residing in vicinity and also indirectly by the development of supporting infrastructure and

M/s Star Mines and minerals: Mining of Karuli shopstone and mine	Draft EIA/EMP
soapstone from Lease Area (7.841 ha.) at Village - Karuli, Tehsil & District	
Bageshwar, State Uttarakhand	

allied activities. The manpower requirement for the proposed project is shown in Table 2.3 along with the breakup, who will be utilized for excavation & loading of minerals into trucks. т

Table 2.3: Details of Manpower r	equirement
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S. No.	Category	Numbers
Skilled		
1.	Mine Manager/DGMS	1
2.	Supervisor	2
3.	Time Keeper	1
4.	Office Assistant/Dispatch Supervisor	2
	Unskilled	
5.	Daily wages workers	53
	Total	59

*Additional workers include workers for dust suppression purpose, providing water for drinking & domestic purpose, for maintenance of roads, etc.

Solid Waste Generation & its Disposal

The top soil will be removed with the help of JCB machine, dozer, shovels, pickaxe, spade & crowbar and stacked separately. The soil intermixed with fragments and interburden rejects are low grade magnesite. Part of these rejects will be utilized in construction and maintenance of retaining walls, parapet walls, check dams and other construction works. About 36780 cum of rejects will be used for this task, and in dump yard remaining rejects about 85820 cum will be backfilled.

The quantity of top soil, interburden and Mineral rejects to be generated in each year is shown in Table 2.4.

Year	Top Soil (cum)	Interburden (cum)	Mineral Rejects (cum)
I	3789.2	21618.94	25408.14
II	4379.08	25913.76	30292.84
	5291.74	26294.31	31586.05
IV	3394.52	24454.03	27848.55
V	3020.88	24319.78	27340.66
Total	19875.42	122600.82	142476.24

Table 2.4: Details of Top soil, interburden and Mineral reje	ects generated
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Storage and preservation of top soil:

The soil will be removed with the help of JCB machine, dozer, shovels, pickaxe, spade & crowbar and loaded manually to stack on the dump yard. Stacking will commence at RL 1123m to RL 1133m in first year, RL 1118 to RL 1130m in second year, RL 1113 to RL 1124 in third year, RL 1165 to 1187m in fourth year & RL 1154 to 1175m in fifth year. The spread of stacks will be undertaken through mechanically and manually both & average dump height kept 1.5m. In first year 240 m² areas was earmarked for stacking of soil with 1.5m height. In second year it is 260 m² areas. Similarly in third, fourth & in fifth year 250 m², 270 m² and 230 m² area have been respectively earmarked for stacking of soil with 1.5m average height. The year wise spread of stack is given below:

Soil stack	l year	ll year	III year	IV year	V year
Length	24m	26m	25m	27m	24m

Width	10m	10m	10m	10m	10m
Average height	1.5m	1.5m	1.5m	1.5m	1.5m
Angle of repose	36 ⁰				

Restriction on mining:

- As per the Uttarakhand mining policy no mining operation shall be carried out within 100 m of railway line & bridge.
- The mining will not intercept the ground water table.
- The contractors will abide by Uttarakhand Minor Mineral Concession Rules, 2001 and guidelines contained in the River/Stream Bed Mining Policy and Land forms studies were taken into consideration.
- The contractors will abide at the time of mining with the term and condition as laid down under Mines Act, 1952 and Mines & Minerals (Regulation and Development) Act, 1957, Forest (Conservation) Act, 1980 and the stipulations of the EIA/EMP.
- The contractor will abide by provision of Mines Act, 1952, Interstate Migrant Work Man Act, the contractor with the satisfaction of competent authority will provide drinking water, rest shelter, first aid box, welfare facilities as Central and State Govt. labor laws.

2.10 SITE FACILITIES AND UTILITIES

Water Supply

Water requirement for the proposed project will be provided for the workers for drinking & domestic purpose. Water will also be provided for dust suppression. Fresh water will be only used for drinking purpose. The break up for water requirement is shown in **Figure 2.3**.

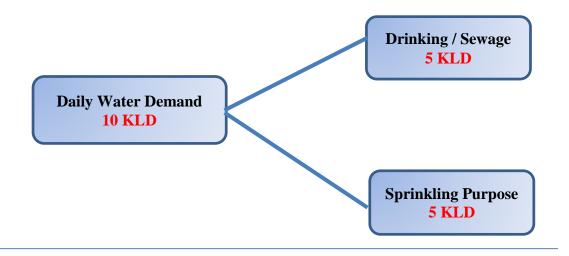


Figure 2.3: Details of water requirement

Temporary Rest Shelter:

A temporary rest shelter will be provided for the workers near to the site for rest.

- Provisions will also be made for following in the rest shelter
- First aid box along with anti-venoms to counteract poison produced by certain species of small insects, if any.
- Sanitation facility i.e. septic tank or community toilet facility will be provided for the workers.

2.11 STATUTORY REQUIREMENTS

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

Various acts dealing with matters relating to the conservation and protection of the environment and which a holder of a mining authorization must also take cognizance of include inter alia, the following:

- Uttarakhand Mineral Policy, 2011
- Uttarakhand Minor Mineral Concession Rules, 2001
- The Mines Act, 1952
- The Mines and Mineral (Development and Regulation) Act, 1957
- Mines Rules, 1955
- Mineral Concession Rules, 1960
- Mineral Conservation and Development Rules, 1988
- The Water (Prevention and Control of Pollution) Act, 1974
- The Air (Prevention and Control of Pollution) Act, 1981
- The Environment (Protection) Act, 1986
- The Forest (Conservation) Act, 1980

2.12 OTHER MINE LEASE PRESENT WITHIN THE STUDY AREA

The other soapstone mine sites which are present within 500 m from the proposed mine and in the study area (10 km) has been presented in **Table 2.5**. The mine lease sites present in the core zone (100 m) and the study area marked in Google earth and SOI toposheet has been shown in **figure 2.4** and **2.5** respectively

M/s Star Mines and minerals: Mining of Karuli shopstone and mine	Draft EIA/EMP
soapstone from Lease Area (7.841 ha.) at Village - Karuli, Tehsil & District	
Bageshwar, State Uttarakhand	

Table 2.5: Details of other soapstone mines present in the study area (10 km radius)from the proposed soapstone mine

Sr. No.	Mine No. Marked on SOI Topo Sheet & Google Earth Map	Details Of Mine	Area (ha)
1.	M2	Shri Ummed Singh, Kalakoti, Village Gadva, Kanda, Bageshwar (Kalakoti Mine)	4.795
2.	M4	Shri Harish Chandra Bhatt, Kanda, Bageshwar (Bakhet Shopstone mine)	9.50
3.	M7	Shri Prem Dhami, Kanda, Bageshwar (Dhpti Shopstone mine)	4.843
4.	M11	Shri Umesh Chandra Pandey, Kanda, Bageshwar (Chilet pali Chak titoli Shopstone mine)	4.822
5.	M18	Shri Mangal Singh Dhami, Kanda, Bageshwar (Jay Dholinaag Enterprises)	4.27
6.	M23	Shri Mahesh Chandra Pant, Kanda, Bageshwar (Sirmoli Mines)	4.588
7.	M24	Shri Ganga Prasad Pandey, Banstoli, Kanda, Bageshwar	1.95 (acre)
8.	M30	Shri Fateh Singh Parihar, Kanda, Bageshwar (Fateh Singh Parihar mines)	4.491
9.	M33	Shri Ram Bharat mines, Village – Ghapoli, Kanda, Bageshwar	30.075
10.	M34	Shri Govind Singh Rotela, Village – Pali Chak Titoli, Kanda, Bageshwar	4.620
11.	M36	M/S Shriram Bharat Mines	5.674
12.	M37	Smt Nadita Tewari	23.0
13.	M40	Shri Girish Chandra Petshali S/O Shri Jugal Kishor Petshali	1.925
14.	M44	Shri Sher Singh, Ghapola	3.60 area
15.	M50	Shri Harish Chandra Lohni S/O Nandaballabh Lohni	4.640
16.	M52	Shri Subodh Lal Sah S/O Shri Girdhari Lal Sah	4.049
17.	M63	Shri Ramesh Singh Majila S/O Shri Nain Singh Majila	4.056
18.	M65	Shri Kuldeep Singh Bisth S/O Shri Deewan Singh	3.70
19.	M71	Shrimati Geeta Boriyal	4.698
20.	M72	Shri Rahul Varshney, Ghapoli	30.07 acre
21.	M75	Shri Govind Singh Rotela	4.620
22.	M76	Shri Ramesh Singh	9.810



Figure 2.4: Other Mine sites present in the core and study area from the proposed project marked in Google earth

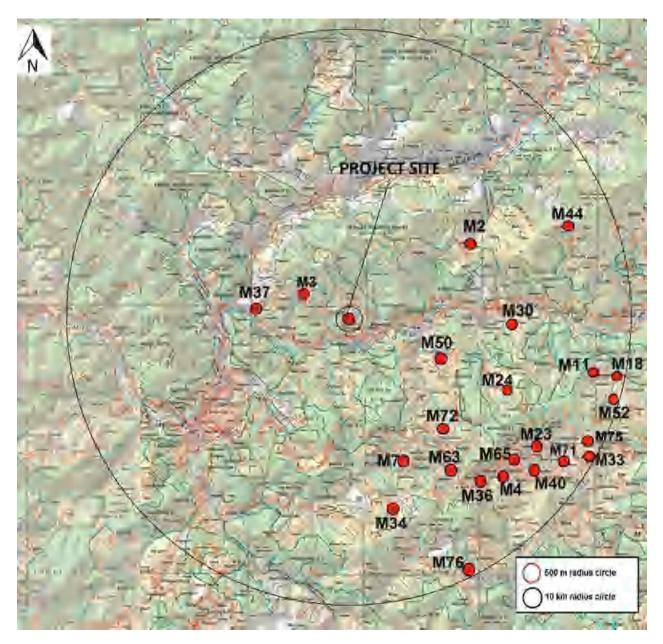


Figure 2.5: Other Mine site present in the core and study area from the proposed project marked in SOI Toposheet

CHAPTER 3: DESCRIPTION OF THE ENVIRONMENT

3.1 PREAMBLE

Baseline environmental studies were conducted to monitor micro-meteorology, Ambient Air Quality, Ground and Surface water quality, Noise Levels, present land use pattern, soil quality, biological environment, socio-economic status, health status etc. within a study area of 10 Km. radius around the project site. To establish the existing physical, natural, socio-economic and cultural environment condition of the study area, data has been collected through primary sources (consultation with the key persons) in addition to information gathered from various secondary sources.

All project relevant secondary data has been collected on regional environmental and social features from various reports pertaining to Government Agencies / Institutions and through literature reviews. Relevant data has been compiled from the census data of 2011, for obtaining details regarding the demographic and socio-economic features in the study area.

The main aim of the impact assessment study depends mainly on two factors. One of the estimation of impact from proposed project on the environment and second one is the assessment of the environmental condition. Both are key factors to arrive at the post project scenario. The estimated impact due to the mine lease area can be superimposed over the existing conditions to arrive at the post project scenario. The scope of the baseline studies includes detailed characterization of following environmental components, which are most likely to be influenced by the setting up of a mine lease area.

- Metrological conditions
- Ambient Air Quality
- Noise levels
- Water Quality (Surface and Ground water)
- Soil Quality
- Socio economic status

3.2 STUDY AREA AND PERIOD

The base-line data has been collected at the project site and 10 km buffer zone for prominent environmental attributes like Ambient Air Quality, Ambient Noise Level, Water quality and Soil profile. Primary and Secondary data has also been collected for other environmental attributes for the preparation of EIA/EMP report. The baseline study for the project was conducted during Dec 2020 to Feb 2021 (pre monsoon). The baseline data monitoring procedures conforms to the requirement of EIA Notification, 2006 (as amended on 14.09.2006). The monitoring and analysis was done through Noida Testing Laboratory which is NABL and MoEF&CC accredited.

Study area map comprising direct impact area is shown in Figure 3.1

M/s Star Mines and minerals: Mining of Karuli shopstone and mine	Draft EIA/EMP
soapstone from Lease Area (7.841 ha.) at Village - Karuli, Tehsil &	
District Bageshwar, State Uttarakhand	

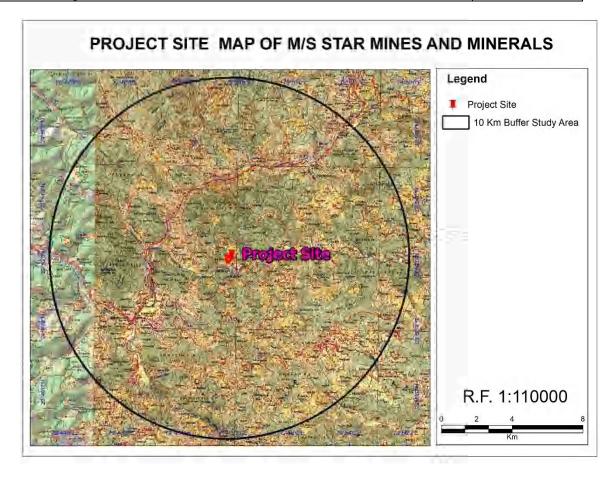


Figure 3.1: Study Area Map (10 km radius)

3.3 METHODOLOGY / APPROACH

3.3.1 Methodology of EIA

Environmental Impact Assessment study has been conducted within an area of 10 km radius around the ML area. The various steps involved in the study for this project are divided into three following phases.

- Identification of significant environmental parameters and assessing the baseline status within the study area and assessment of pollutants envisaged due to proposed activities and the polluting activities in the study area on various environmental parameters.
- Evaluation of impacts after superimposing the predicted pollution load over the baseline condition.
- Prepare Environmental Management Plan for mitigation of impacts on environment arising out of the proposed activity.

3.3.2 Approach

Environmental monitoring in order to establish the baseline environmental status of the study area for Ambient air, Water, Soil, Land use, ecology, etc.

- Collection of site specific meteorological data at the mine site.
- Carrying out a detailed biological study for the Core and Buffer Zone.
- Literature review that includes identification of relevant data and articles from various publications, various government agencies and other sources for socioeconomy, meteorology, land use, ecology, etc.
- Identify various existing pollution loads due to mining and domestic activities in the buffer zone.
- Evaluate the predicted impacts on the various environmental attributes in the study area by using scientifically developed and widely accepted Environmental Impact Assessment (EIA) Methodologies.
- Preparation of an Environmental Management Plan (EMP) outlining the measures for improving the environmental quality.

Accordingly, field studies were carried out during the study period (Dec 2020 to Feb 2021) to establish the existing baseline conditions.

3.4 METEOROLOGICAL CONDITIONS

Meteorology is the key to understand the air quality. The essential relationship between meteorology and atmospheric dispersion involves the wind in the broadest sense. Wind fluctuations over a very wide range of time, accomplish dispersion and strongly influence other processes associated with them.

A meteorological station was set up at the proposed mine premises. Meteorological data was generated during the pre-monsoon monitoring period.

The following parameters were recorded at hourly intervals continuously during monitoring period, except rainfall which was recorded on daily basis.

- Wind speed
- Wind Direction
- Air Temperature
- Rainfall

3.4.1 Climate of the project district

The average temperature for the year in Bageshwar is 20.4 °C (68.8 °F). The warmest month, on average, is June with an average temperature of 27.3 °C (81.2 °F). The highest temperature ever recorded was 38 °C, recorded on 5 June 2017. The coolest month on average is January, with an average temperature of 11 °C (51.8 °F). The average amount of precipitation for the year in Bageshwar is 48.1" (1221.7 mm). The month with the most precipitation on average is July with 13.0" (330.2 mm) of precipitation. The month with the least precipitation on average is November with an average of 0.2" (5.1 mm). There is an average of 63.6 days of precipitation, with the most precipitation occurring in August with 15.3 days and the least precipitation occurring in November with 0.8 days.

3.4.2 Wind speed/Direction

Generally, light to moderate winds prevail throughout the year with speed ranging from 1 to 19 kmph. Winds were light and moderate particularly during the morning hours, while during the afternoon hours the winds were stronger. The wind rose diagram developed during the study period is shown in **Figure 3.2** reveals that pre-dominant wind direction occurs mostly blowing from west direction in project site and the average wind speed is 0.6 m/s.

Table 3.1(a) shows the Meteorological Data Parameters at the project site whereas **Table 3.1** (b) shows the Meteorological Data Parameters of Mukteshwar district (Nearest IMD from the proposed project) for the months of Dec 2020 to Feb 2021.

Table-3.1 (a): Meteorological Data Parameters at Project site for the months of Dec 2020 to Feb 2021

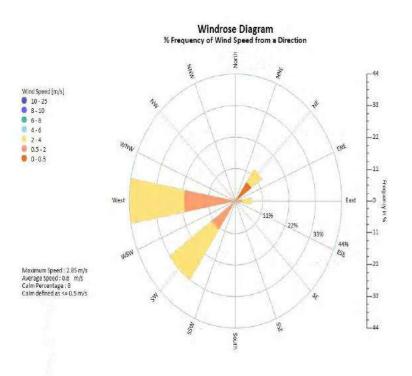
Date	Temperature, deg C		Humidity, %		Pressure, hPa		Wind Speed, km/Hr	Predominant Wind	Rainfall			
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Avg	Direction	mm
Decembe r	2	26	16	44	63	58	774.2	776.8	775.2	1.4	W	21
January	3	24	17	50	62	56	773.6	776.9	775.9	1.8	NE	45.6
Februar y	4	30	18	51	60	57	771.8	776.1	771.2	2.4	W	61.5

Source: Weather station

Table-3.1 (b): Meteorological Data Parameters at Mukteshwar district (Nearest IMD from the proposed project) for the months of Dec 2020 to Feb 2021

Date	Temp	eratur C	e, deg	Hu	midity	, %	Pre	ssure,	hPa	Wind Speed, Predominant km/Hr Wind		Rainfall
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Avg	Direction From	mm
Dece mber	-1.3	19.2	14.3	46	62	58	775.9	777.2	776.4	1.8	W	22
Janu ary	-2.7	18.5	12.7	53	63	57	774.0	775.0	774.5	2.1	NE	46.7
Febr uary	-2.0	19.5	13.4	55	63	58	773.5	774.4	773.9	2.5	W	65.2

Source: IMD





3.5 AIR ENVIRONMENT

3.5.1 Ambient Air Quality

The Ambient Air Quality was monitored in the impact area as per MoEF&CC guidelines and as per approved ToR by SEAC, Uttarakhand. The study area represents mostly rural environment. The prime objective of the baseline air quality study was to assess the ambient air quality of the mining lease area.

3.5.2 Methodology Adopted for the Study

The baseline status of the ambient air quality has been assessed through a scientifically designed ambient air quality network. The design of monitoring network in the air quality surveillance programme has been based on the following consideration.

- Meteorological parameters covering upwind, downwind and cross wind direction
- Topography of the study area
- Representative of regional background air quality for obtaining baseline status
- Representative of likely impact areas.

Ambient Air Quality Monitoring (AAQM) stations were set up at 5 locations, one in core zone and the other four in the study area of 10 km with due consideration to the above mentioned points. AAQM locations were selected in downwind and upwind direction of the

proposed mining lease area covering core and buffer zones. The details of the monitoring stations are given in **Figure 3.3** and shown in **Table-3.2**.

Ambient air quality monitoring was carried out twice a week with a frequency of 24 hours for 12 weeks during the study period. The common air pollutant namely Particulate Matter-10 (PM_{10}), Particulate Matter-2.5 ($PM_{2.5}$), Sulphur-dioxide (SO_2) and Nitrogen dioxide (NO_2) has been measured through a planned field monitoring. The baseline values of the air pollutants of concern are presented in **Tables 3.3 (a) to Tables 3.3 (d)** below statistical parameters like minimum, maximum, average and 98th percentiles have been computed from the observed field data for all sampling stations. These are compared with the standards prescribed by National Ambient Air Quality Standards 2009.

 Table 3.2: Location of Ambient Air Quality Monitoring Stations

S. No.	Location Name	Direction	Distance from the project site (in km)
AAQ1	Khabdoli	West	8.1
AAQ2	Project Site	NA	0
AAQ3	Parol	East	7.02
AAQ4	Harsila	NW	4.54
AAQ5	Simkhet	South	4.66

Ambie	ent Air Qual	ity Data December 2021	Location: AQ 1 (Khabdoli)		
0 N a	Data	PM2.5,µg/m3	PM10,µg/m3	SO₂ µg/m3	Nox ,µg/m3
S.No	Date	Gravimetric	IS:5182:Pt-23	IS:5182:Pt- 2	IS:5182:Pt-6
1	01.12.20	25.6	45.6	5.2	10.8
2	03.12.20	24.2	48.9	5.0	11.6
3	11.12.20	27.2	44.2	5.5	9.8
4	13.12.20	28.3	53.5	5.4	8.6
5	17.12.20	20.5	54.2	5.6	10.3
6	19.12.20	18.8	47.6	5.4	9.6
7	27.12.20	16.2	49.5	5.2	9.2
8	29.12.20	15.9	50.6	5.3	10.5
9	02.01.21	18.6	51.2	5.0	11.5
10	04.01.21	21.5	53.6	5.4	12.8
11	12.01.21	22.2	54.0	5.5	13.2
12	14.01.21	24.6	45.2	5.3	13.3
13	18.01.21	25.8	47.8	5.2	10.8
14	20.01.21	28.0	44.5	5.6	9.9
15	28.01.21	23.2	50.2	5.4	10.6
16	30.01.21	24.4	51.6	5.2	10.2
17	01.02.21	19.6	54.0	5.3	9.4
18	03.02.21	20.3	50.2	5.0	9.9

19	11.02.21	21.6	52.5	5.4	8,6
20	13.02.21	25.4	48.6	5.5	7.6
21	17.02.21	27.7	49.4	5.3	5.7
22	19.02.21	26.8	45.8	5.2	6.8
23	26.02.21	24.4	53.2	5.1	9.2
24	28.02.21	21.2	50.5	5.0	8.4
Minim	num	15.9	44.2	5.0	5.7
Maxin	num	28.3	54.2	5.6	13.3
Avera	ge	23.0	49.9	5.3	10.0
98 Percentile		28.2	54.1	5.6	13.3
NAAQS, For 24 hourly monitoring		60	100	80	80

Table-3.3 (b): Ambient Air Quality in Project Site, PM2.5, PM₁₀, SO₂, NOx

Ambi	ent Air Qua	Location: AQ 2 (Project Site)			
	Data	PM2.5,µg/m3	PM10,µg/m3	SO₂ µg/m3	Nox ,µg/m3
S.No	Date	Gravimetric	IS:5182:Pt-23	IS:5182:Pt- 2	IS:5182:Pt-6
1	01.12.20	25.5	44.6	5.2	16.4
2	03.12.20	26.2	47.5	5.5	13.2
3	11.12.20	24.0	49.8	5.9	14.2
4	13.12.20	26.6	45.5	5.4	15.5
5	17.12.20	25.5	50.2	5.0	14.3
6	19.12.20	20.4	53.2	5.7	13.2
7	27.12.20	19.8	43.1	5.0	14.8
8	29.12.20	24.6	50.6	5.2	12.6
9	02.01.21	25.5	52.5	5.5	15.8
10	04.01.21	27.1	48.2	5.6	16.6
11	12.01.21	26.4	47.5	5.2	6.9
12	14.01.21	27.1	49.2	5.8	7.0
13	18.01.21	25.8	50.2	5.9	8.8
14	20.01.21	24.2	47.8	5.5	14.2
15	28.01.21	23.7	46.2	5.4	15.5
16	30.01.21	25.3	44.5	5.6	14.3
17	01.02.21	23.4	50.5	5.7	14.2
18	03.02.21	22.2	51.2	5.3	15.5
19	11.02.21	19.8	45.4	5.4	14.3
20	13.02.21	19.7	46.7	5.5	13.2
21	17.02.21	21.6	50.5	5.2	14.8
22	19.02.21	22.8	51.5	5.5	12.6
23	26.02.21	24.5	49.0	5.4	15.8

24	28.02.21	26.7	48.2	5.7	16.0
Minim	num	19.7	43.1	5.0	6.9
Maxin	num	27.1	53.2	5.9	16.6
Average		24.1	48.5	5.5	13.7
98 Percentile		27.1	52.9	5.9	16.5
ł	QS, For 24 nourly onitoring	60	100	80	80

Table-3.3 (c): Ambient Ai	[·] Quality in Parol, PM2.	5, PM ₁₀ , SO ₂ , NOx
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Ambient Air Quality Data December 2020 to February 2021				Location: AQ 3 (Parol)		
S.N o	Date	PM2.5,µg/m3	5,µg/m3 PM10,µg/m3	SO ₂ μg/m3	Nox ,µg/m3	
		Gravimetric	IS:5182:Pt-23	IS:5182:Pt -2	IS:5182:Pt-6	
1	01.12.20	22,5	45.5	5.5	11.8	
2	03.12.20	21.8	50.2	5.4	12.2	
3	11.12.20	20.6	52.5	5.2	13.2	
4	13.12.20	22.5	43.1	5.7	9.8	
5	17.12.20	23.3	50.6	5.5	10.2	
6	19.12.20	21.8	52.5	5.0	11.2	
7	27.12.20	19.8	36.2	5.2	12.6	
8	29.12.20	20.6	47.5	5.6	10.6	
9	02.01.21	13.2	49.2	5.5	9.8	
10	04.01.21	12.4	50.2	5.2	11.6	
11	12.01.21	21.5	47.8	5.3	10.2	
12	14.01.21	22.5	46.2	5.5	9.8	
13	18.01.21	23.0	44.5	5.4	10.2	
14	20.01.21	20.8	50.5	5.6	11.6	
15	28.01.21	17.6	51.2	5.2	12.4	
16	30.01.21	16.8	50.6	5.7	13.2	
17	01.02.21	17.0	52.5	5.2	10.8	
18	03.02.21	16.5	48.2	5.0	9.6	
19	11.02.21	19.0	47.5	5.5	7.3	
20	13.02.21	18.2	49.2	5.4	10.8	
21	17.02.21	20.6	50.2	5.2	11.3	
22	19.02.21	21.5	47.8	5.5	12.5	
23	26.02.21	22.3	46.2	5.6	10.4	
24	28.02.21	23.0	44.5	5.0	9.6	
Minimum		12.4	36.2	5.0	7.3	
Maximum		23.3	52.5	5.7	13.2	
Avera	ige	19.8	48.1	5.4	10.9	
98 Pe	rcentile	23.2	52.5	5.7	13.2	

NAAQS, For 24 hourly monitoring	60	100	80	80
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Table-3.3 (d): Ambient Air Quality in the Harsila, PM2.5, PM₁₀, SO₂, NOx

Ambient Air Quality Data December 2020 to February 2021				Location: AQ 4 (Harsila)		
C No	Date	Dete	PM2.5,µg/m3	PM10,µg/m3	SO₂ μg/m3 NOx ,μg/m3	
S.No		Gravimetric	IS:5182:Pt-23	IS:5182:Pt- 2	IS:5182:Pt-6	
1	01.12.20	20.7	40.8	5.3	10.5	
2	03.12.20	19.5	44.6	5.2	9.2	
3	11.12.20	18.2	35.5	5.1	11.6	
4	13.12.20	16.6	37.8	5.4	13.5	
5	17.12.20	15.2	39.0	5.0	14.0	
6	19.12.20	14.6	40.8	5.2	14.1	
7	27.12.20	14.3	45.2	5.3	11.6	
8	29.12.20	15.8	44.6	5.2	12.5	
9	02.01.21	16.2	42.3	5.1	12.0	
10	04.01.21	21.3	37.8	5.2	9.8	
11	12.01.21	20.6	40.2	5.3	11.2	
12	14.01.21	19.8	41.6	5.0	12.6	
13	18.01.21	18.2	43.2	5.3	14.0	
14	20.01.21	21.0	45.2	5.2	13.8	
15	28.01.21	17.6	44.8	5.4	11.8	
16	30.01.21	15.5	41.6	5.0	12.5	
17	01.02.21	16.8	40.2	5.2	13.6	
18	03.02.21	17.2	34.5	5.1	12.2	
19	11.02.21	18.5	36.8	5.4	10.2	
20	13.02.21	20.2	44.2	5.3	9.8	
21	17.02.21	21.0	45.0	5.2	10.2	
22	19.02.21	21.3	39.7	5.1	11.5	
23	26.02.21	19.7	36.4	5.0	10.8	
24	28.02.21	17.2	40.7	5.2	9.6	
Minimum		14.3	34.5	5.0	9.2	
Maximum		21.3	45.2	5.4	14.1	
Average		18.2	40.9	5.2	11.8	
98 Percentile		21.3	45.2	5.4	14.1	
NAAQS, For 24 hourly monitoring		60	100	80	80	

M/s Star Mines and minerals: Mining of Karuli shopstone and mine	Draft EIA/EMP
soapstone from Lease Area (7.841 ha.) at Village - Karuli, Tehsil &	
District Bageshwar, State Uttarakhand	

^	mbient Air	Quality Data Dece February 2021	mber 2020 to		n: AQ 5 (khet)
C No	Data	PM2.5,µg/m3	PM10,µg/m3	SO₂ µg/m3	NOx ,µg/m3
S.No	Date	Gravimetric	IS:5182:Pt-23	IS:5182:Pt- 2	IS:5182:Pt-6
1	01.12.20	27.3	52.4	8.3	13.8
2	03.12.20	27.0	66.3	8.3	12.4
3	11.12.20	27.5	62.3	7.8	15.1
4	13.12.20	30.7	68.2	7.3	13.6
5	17.12.20	30.3	63.7	7.8	14.5
6	19.12.20	30.2	62.8	7.8	14.5
7	27.12.20	29.4	64.5	8.3	13.8
8	29.12.20	27.3	60.4	7.8	14.5
9	02.01.21	27.0	66.3	7.0	13.5
10	04.01.21	30.1	63.9	8.3	14.5
11	12.01.21	28.2	60.5	7.8	14.5
12	14.01.21	29.4	53.4	7.9	14.5
13	18.01.21	27.0	68.2	8.9	13.6
14	20.01.21	29.0	57.0	7.9	13.2
15	28.01.21	28.2	68.2	7.9	14.0
16	30.01.21	30.2	55.6	7.9	14.5
17	01.02.21	28.2	68.2	8.5	14.5
18	03.02.21	27.4	58.2	7.8	14.5
19	11.02.21	29.5	68.5	7.8	13.5
20	13.02.21	27.3	53.2	8.0	14.5
21	17.02.21	29.5	66.3	8.0	13.5
22	19.02.21	26.6	52.8	8.5	14.5
23	26.02.21	26.9	55.8	8.0	14.6
24	28.02.21	22.8	59.7	7.5	16.3
Minimum		22.8	52.4	7.0	12.4
Maximum		30.7	68.5	8.9	16.3
Average		28.2	61.5	8.0	14.2
98 Percentile		30.5	68.4	8.7	15.7
NAAQS, For 24 hourly monitoring		60	100	80	80

Table-3.3 (e): Ambient Air Quality in the Simkhet, PM2.5, PM₁₀, SO₂, NOx

M/s Star Mines and minerals: Mining of Karuli shopstone and mine	Draft EIA/EMP
soapstone from Lease Area (7.841 ha.) at Village - Karuli, Tehsil &	
District Bageshwar, State Uttarakhand	

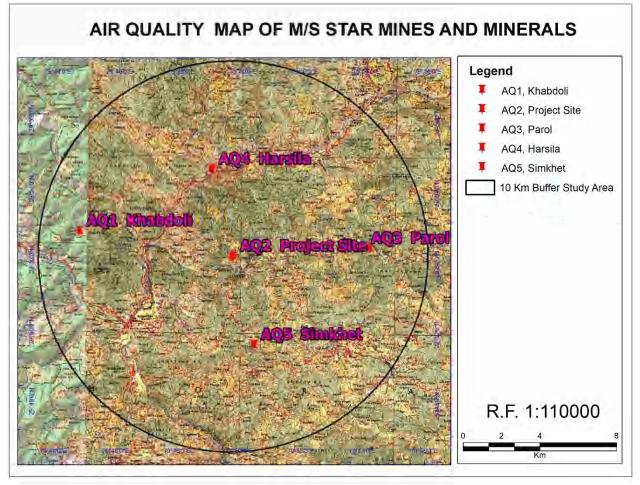


Figure 3.3 Ambient Air Quality Monitoring Locations

M/s Star Mines and minerals: Mining of Karuli shopstone and mine	Draft EIA/EMP
soapstone from Lease Area (7.841 ha.) at Village - Karuli, Tehsil &	
District Bageshwar, State Uttarakhand	

Air Monitoring photograph



Near Project Site

3.5.3 Baseline Scenario

a) Suspended Particulate Matter (PM10)

Suspended particulate matter in general terms is the particulate matter in suspension in ambient air. It includes dust and smoke particles etc. In general some of the important sources of suspended particulate matter are mines. The following sources of suspended particulate matter in the study area are identified:

- Emission due to vehicular movement
- Dust generation from mining operations

The minimum and maximum level of PM_{10} recorded within the study area was in the range of 34.5 µg/m³ to 68.5 µg/m³ with the 98th percentile ranging between 45.2 µg/m³ to 68.4 µg/m³.

The 24 hourly average values of PM_{10} were compared with the National Ambient Air Quality Standards (NAAQS) and found that all sampling stations recorded in the study area are within the applicable limits i.e., 100 μ g/m³ for PM₁₀ in Industrial, Residential, Rural and other areas.

b) Particulate Matter (PM2.5)

Fine particulate matter in general terms is the particulate matter in suspension in ambient air. It includes dust, smoke etc. In general some of the important sources of suspended particulate matter are mines. The following sources of suspended particulate matter in the study area are identified:

- Emission due to vehicular movement
- Dust generation from mining operations

The minimum and maximum level of $PM_{2.5}$ recorded within the study area was in the range of 12.4 µg/m³ to 30.7 µg/m³ with the 98th percentile ranging between 21.3 µg/m³ to 30.5 µg/m³.

The 24 hourly average values of $PM_{2.5}$ were compared with the National Ambient Air Quality Standards (NAAQS) and found that all sampling stations recorded in the study area are within the applicable limits i.e., 60 μ g/m³ for PM_{2.5} in Industrial, Residential, Rural and other areas.

c) Sulphur Dioxide (SO2)

Sulphur dioxide gas is an inorganic gaseous pollutant. Sulphur dioxide emissions are expected to be emitted wherever combustion of any fuel containing Sulphur takes place. The Sulphur in the fuel will combine with oxygen to form Sulphur dioxide. The following sources of Sulphur dioxide in the study area are identified:

• Emissions from domestic/consumption of fuel (coal, diesel, etc)

Sulphur dioxide in atmosphere is significant because of its toxicity; Sulphur dioxide is capable of producing illness and lung injury. Further it can combine with water in the air to form toxic acid aerosols that can corrode metal surfaces, fabrics and the leaves of plants. Sulphur dioxide is an irritant to the eyes and respiratory system. Excessive exposure to Sulphur dioxide causes bronchial asthma and other breathing related diseases as it affects the lungs.

The minimum and maximum concentration of SO2 recorded within the study area was 5.0 to 8.9 μ g/m³ with the 98th percentile ranging between 5.4 μ g/m³ to 8.7 μ g/m³.

The 24 hourly average values of SO2 were compared with the National Ambient Air Quality Standards (NAAQS) and it was found that all sampling stations recorded values are below the applicable limits 80 μ g/m³ for Industrial, Residential, Rural and other areas.

d) Nitrogen Dioxide (NO2)

The important sources of oxides of Nitrogen are from utilities and auto exhaust due to vehicular movement in mine lease area. The following sources of oxides of nitrogen in the study area are identified.

• Emissions from field burning of coal.

• Emissions from vehicular movements in the study area.

Oxides of Nitrogen in the presence of sunlight will undergo reactions with a number of organic compounds to produce all the effects associated with photochemical smog. The minimum and maximum level of NO2 recorded within the study area was in the range of was 5.7 μ g/m³ to 16.6 μ g/m³ with the 98th percentile ranging between 13.2 μ g/m³ to 16.5 μ g/m³.

The 24 hourly average values of NO2 were compared with the National Ambient Air Quality Standards (NAAQS) and it was found that all sampling stations recorded values are below the applicable limits 80 μ g/m³ for Industrial, Residential, Rural and other areas.

3.6 NOISE ENVIRONMENT

Noise is one of the most undesirable and unwanted by-products of our modern life style. It may not seem as insidious or harmful as air and water pollutants but it affects human health and well-being and can contribute to deterioration of human well-being in general and can cause neurological disturbances and physiological damage to the hearing mechanism in particular. It is therefore, necessary to measure both the quality as well as the quantity of noise in and around the proposed site.

3.6.1 Source of Noise

The main sources of noise in the study area are domestic activities, industrial activities and vehicular traffic. The main occupation of the villagers in the study area is agriculture and business.

3.6.2 Noise Level in the Study Area

The baseline noise levels have been monitored at 5 locations, one in core zone and four within the study zone twice a week during pre monsoon period, using a sound level meter and noise level measurement locations were identified for assessment of existing noise level status, keeping in view the land use pattern, industrial area, Silence Zone, residential areas in villages etc., if available within 10 km radius of the study area. The day levels have been monitored during 6.00 AM to 10.00 PM and night noise levels, during 10.00 PM to 6.00 AM. The noise monitoring stations are shown in **Figure 3.4** and represented in **Table 3.4**. The results are presented in **Table 3.5** (a) **Table 3.5**.

S. No.	Location Name	Direction	Distance from the project site (in km)
NQ1	Khabdoli	West	8.1
NQ2	Project Site	NA	0
NQ3	Parol	East	7.02
NQ4	Harsila	NW	4.54
NQ5	Simkhet	South	4.66

M/s Star Mines and minerals: Mining of Karuli shopstone and mine	Draft EIA/EMP
soapstone from Lease Area (7.841 ha.) at Village - Karuli, Tehsil &	
District Bageshwar, State Uttarakhand	

Locatio n Code	Noise levels dB(A), Day (Leq)	Noise levels dB(A) Night, (Leq)	Noise Limits in dB(A), Leq Day Time	Noise Limits in dB(A), Leq Night Time	Area
NQ1	52.8	41.1	75	70	Residential
NQ2	70.5	65.2	65	55	Mine Site (Industrial)
NQ3	50.6	38.2	55	45	Residential
NQ4	48.7	39.4	55	45	Residential
NQ5	51.8	40.2	50	40	Residential

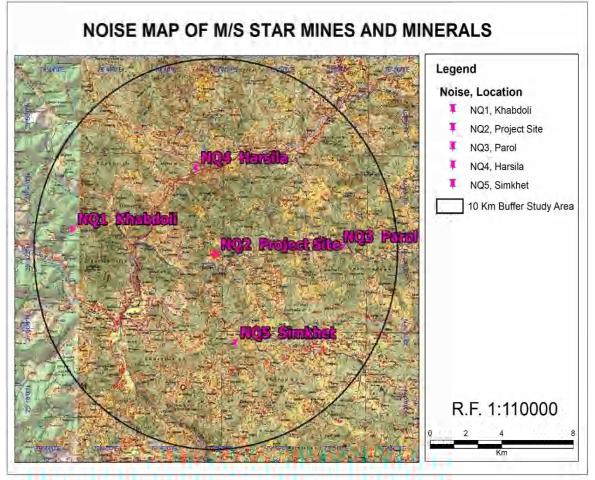


Figure 3.4: Ambient Noise Level Monitoring Locations

3.6.3 Ambient Noise Standards

Ministry of Environment, Forest and Climate Change (MoEF&CC) has notified the noise standards vide gazette notification dated February 14, 2000 for different zones under the Environment Protection Act (1986). These standards are given in **Table-3.6**

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

Table 3.6: Ambient Quality Standards in respect of Noise

Note:

- 1. Daytime is from 6.00am to 10.00 pm and Nighttime is from 10.00 pm to 6.00 am.
- 2. Silence zone is defined as area up to 100 meters around premises of hospitals, educational institutions and courts. Use of vehicle hours, loud speakers and bursting of crackers are banned in these zones

3.6.4 Baseline Scenario

The values of noise observed in some of the areas are primarily owing to vehicular traffic and other anthropogenic activities. Assessment of average logarithm night time Leq (Ln) varies from 38.2 to 65.2 db and the average logarithm daytime Leq (Ld) varies from 48.7 to 70.5 dB in the study area.

The status of noise quality within the 10 km zone of the study area is, therefore, within the MoEF&CC standards.

Some of the photographs of Noise Monitoring



3.7 WATER ENVIRONMENT

3.7.1 Water Quality

Water quality assessment is one of the essential components of EIA study. Such assessment helps in evaluating the existing health of water body and suggesting appropriate mitigation measures to minimize the potential impact from development projects. Water quality of ground water has been studied in order to assess proposed water-uses in dust suppression, drinking and green belt watering purpose.

The water quality within the study area was monitored during the study period. The water samples were collected once in month. The water sampling locations marked within the study are presented in **Table 3.7** and the result of the monitoring and analysis are presented in the **Table 3.8 and Figure 3.5A**, **3.5B shows** the Water Quality Monitoring Locations marked within the Study Area.

S. No.	Location Name	Direction	Distance from the project site (in km)
GWQ1	Khabdoli	West	8.1
GWQ2	Project Site	NA	0
GWQ3	Parol	East	7.02
GWQ4	Harsila	NW	4.54
GWQ5	Simkhet	South	4.66
SWQ1	Upstream (Saryu River)	North	3.2
SWQ2	Downstream (Saryu River)	South	7.14

Table 3.7: Location of Water Sampling Sites

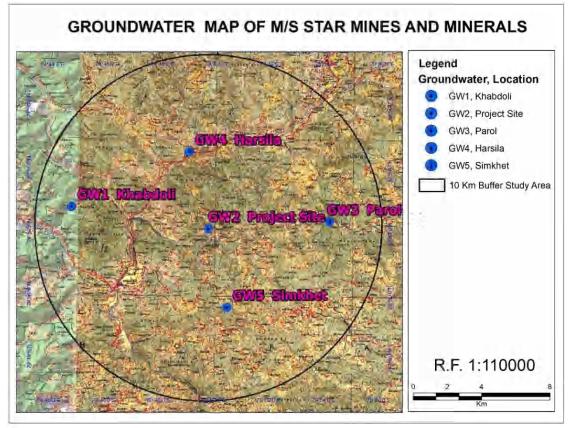


Figure 3.5 A: Location Map of Ground Water Sampling Sites

M/s Star Mines and minerals: Mining of Karuli shopstone and mine	Draft EIA/EMP
soapstone from Lease Area (7.841 ha.) at Village - Karuli, Tehsil &	
District Bageshwar, State Uttarakhand	

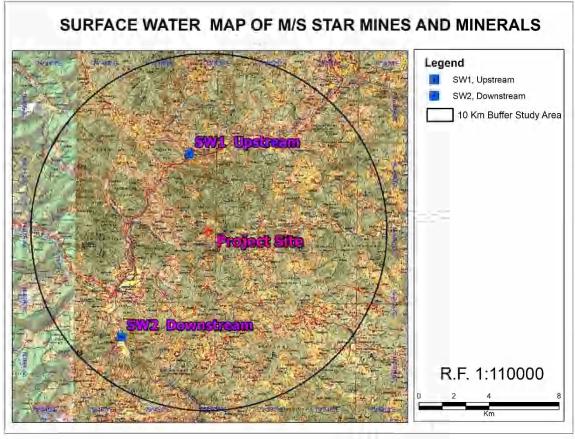


Figure 3.5 B: Location Map of Surface Water Sampling Sites

			Limit (IS-	·10500:2012)	GW1	GW2	SW3	GW4	GW5	SW1	SW2
S. No	Parameter	Unit	Desirable	Permissible	Khabdoli	Project Site	Parol	Harsila	Simkhet	U/S Saryu River	D/S Saryu River
1	Temperature (°C)	(⁰ C)	-	-	15	9	8	7	9	10	9
2	pН	-	6.5-8.5	No Relaxation	7.86	7.66	7.36	7.44	7.32	7.26	7.42
3	Electrical Conductivity	Microm/h os/cm	-	-	755.16	762.26	412.36	425.22	395.85	366.48	337.11
4	TDS	mg/l	500	2000	413.34	395.24	205.16	210.22	198.6	186.98	175.36
5	TSS	Mg/I	-	-	BDL	BDL	0.41	BDL	BDL	BDL	BDL
6	Dissolved Oxygen	mg/l			4.8	3.8	5.6	4.2	3.9	3.6	3.8
7	Alkalinity as (CaCO₃)	mg/l	200	600	389.24	386.12	216.16	208.14	205.23	202.32	208.41
8	Total Hardness (as CaCO ₃)	mg/l	200	600	288.2	245.56	182.44	205.32	195.25	185.18	188.11
9	BOD (at 27ºC 3- Days)	mg/l	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10	COD	mg/l	-	-	BDL	BDL	5.5	BDL	BDL	BDL	BDL
11	Nitrate (as NO ₃)	mg/l	45	No Relaxation	0.24	0.12	0.66	0.12	0.24	0.36	0.48
12	Chloride (as Cl)	mg/l	250	1000	28	48	12.6	20.5	18.4	16.3	17.2
13	Phosphates	mg/l	-	-	0.04	0.05	0.03	0.06	0.08	0.1	0.12
14	Sulphate (as SO ₄)	mg/l	200	400	58.7	62.6	42.3	38.6	40.5	42.4	44.3
15	Sodium (as Na)	mg/l	-	-	42.7	62.5	42.5	40.2	38.6	37	39.4
16	Potassium (as K)	mg/l	-	-	2.5	3.8	2.7	3	2.6	2.2	2.8
17	Calcium (as CaCO ₃)	mg/l	75	200	56.8	52.3	55.4	48.2	47.3	46.4	45.5

 Table 3.8 : Water Quality during the month of Mar 2020

18	Magnesium (as CaCO ₃)	mg/l	30	100	227	41.2	32.6	38.6	32.5	26.4	27.3
19	Silica	mg/l	-	-	33.2	28.6	32.5	30.5	37.5	44.5	51.5
20	Oil & Grease	mg/l	-	-	<1.0	<1.00	<1.00	<1.00	<1.01	<1.02	<1.03
21	Residual Sodium Carbonate	mg/l	-	-	116	86	72	78	65	52	54
22	Lead (as Pb)	mg/l	0.01	No Relaxation	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
23	Arsenic (as As)	mg/l	0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
24	Mercu22ry (as Hg)	mg/l	0.001	No Relaxation	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
25	Cadmium (as Cd)	mg/l	0.003	No Relaxation	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
26	Chromium (as Cr6+)	mg/l	0.05	No Relaxation	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
27	Total Chromium (as Cr6+)	mg/l	0.05	No Relaxation	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
28	Copper (as Cu)	mg/l	0.05	1.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
29	Zinc (as Zn)	mg/l	5	15	0.18	0.19	0.003	0.12	0.16	0.2	0.24
30	Iron (as Fe)	mg/l	0.3	1	0.86	0.78	0.03	0.78	0.76	0.74	0.72
Bact	eriological Paramete	er									
1	Total Coliform	MPN/10 0ml	Absent	-	Absent	Absent	Absent	Absent	Absent	105	110
2	<u>E</u> .coli	<u>E</u> . <u>coli</u> /100ml	Absent	-	Absent	Absent	Absent	Absent	Absent	290	310

3.7.2 Sampling Frequency and Sampling Techniques

Parameters for analysis of water quality were selected based on the utility of the particular source of water as per MoEF&CC guidance. Hence quality of ground water was compared with IS: 10500: 2012 for drinking purposes. Surface water quality was monitored for parameters as per Methods of Monitoring & Analysis published by CPCB and it was rated according to the CPCB Water Quality Criteria against A, B, C, D & E class of water. Water samples were collected as Grab water sample from sampling location. The samples were analyzed as per standard procedure / method given in IS: 3025 (Revised Part) and standard method for examination of water and wastewater Ed.21st, published jointly APHA, AWWA and WPCF. The surface water quality is compared with CPCB water quality criteria mentioned in **Table 3.9** below:

Designated-Best-Use	Class of	Criteria		
	water			
Drinking Water Source	A	Total Coliforms Organism MPN/100ml shall be 50		
without conventional		or less		
treatment but after		pH between 6.5 and 8.5		
disinfection		Dissolved Oxygen 6mg/l or more Biochemical		
		Oxygen Demand 5 days 20°C 2mg/l or less		
Outdoor bathing	В	Total Coliforms Organism MPN/100ml shall be 500		
(Organized)		or less;		
		pH between 6.5 and 8.5;		
		Dissolved Oxygen 5mg/l or more Biochemical		
		Oxygen Demand 5 days 20°C 3mg/l or less		
Drinking water source	С	Total Coliforms Organism MPN/100ml shall be		
afterconventional treatment		5000 or less; pH between 6 to 9;		
disinfection		Dissolved Oxygen 4mg/l or more Biochemical		
		Oxygen Demand 5 days 20°C 3mg/l or less		
Propagation of Wild life	D	pH between 6.5 to 8.5		
and Fisheries		Dissolved Oxygen 4mg/l or more Free Ammonia		
		(as N) 1.2 mg/l or less		
Irrigation, Industrial	E	pH between 6.0 to 8.5		
Cooling, Controlled		Electrical Conductivity at 25°C micro mhos/cm		
Waste disposal		Max.2250		
		Sodium absorption Ratio Max. 26		
		Boron Max. 2mg/l		
	Below-E	Not Meeting A, B, C, D & E Criteria		

Table 3.9: Water Quality Criteria as per Central Pollution Control Board

M/s Star Mines and minerals: Mining of Karuli shopstone and mine	Draft EIA/EMP
soapstone from Lease Area (7.841 ha.) at Village - Karuli, Tehsil & District	
Bageshwar, State Uttarakhand	

Water Sampling photograph



Village - Parol Location

3.7.3 Result & Conclusion:

- The pH limit fixed for drinking water samples as per IS-10500 Standards is 6.5 to 8.5 beyond this range the water will affect the mucus membrane or water supply system. During the study period, the pH was varying for ground water from 7.32 to 7.86 and the surface water are 7.26 to 7.42. The pH values for all the samples collected in the study area during study period were found to be within the limits.
- The desirable limit for total dissolved solids as per IS-10500 Standards is 500 mg/l whereas the permissible limits in absence of alternate source is 2000 mg/l, beyond this palatability decreases and may cause gastro intestinal irritation. In ground water samples collected from the study area, the total dissolved solids in ground water are varying from 198.6 mg/l to 413.34 mg/l whereas in surface water varying from 175.36 mg/l to 186.98 mg/l. The TDS of the samples were within the desirable limit but within the permissible limit of 2000 mg/l.
- The desirable limit for chlorides is 250 mg/l as per IS-10500 Standards whereas, permissible limit of the same is 1000 mg/l beyond this limit taste, corrosion and palatability are affected. The chloride level in the ground water samples collected in the study area were ranging from 12.6 mg/l to a maximum of 48 mg/l, in surface water samples 16.3 mg/l to 17.2 mg/l. The chloride samples are within the desirable limits.
 - The desirable limit as per IS-10500 Standards for hardness is 200 mg/l whereas the permissible limit for the same is 600 mg/l beyond this limit encrustation in water supply structure and adverse effects on domestic use will be observed. In

the ground water samples collected from the study area, the hardness is varying from 182.44 mg/l to 288.2 mg/l, in surface water samples 185.18 mg/l to 188.11 mg/l.

Overall all the samples collected from the study area were found to be fit for consumption, Most of ground water samples are well within the permissible limits, as per IS-10500. Most of the heavy metals in all samples are below detectable limits.

Comparing the values of pH, DO, BOD and total coliforms with 'Use based classification of surface waters' published by Central Pollution Control Board; it can be seen that all the analyzed surface waters can be compared with class 'B' and can be used as Outdoor bathing (Organized).

3.8 SOIL CHARACTERISTICS

The composite soil samples were collected from site and the study area and were analyzed for characterization. The locations of the monitoring sites are depicted in **Figure 3.6** and given in **Table 3.10** Showing Soil Sample Collection Points marked within the Study Area.

3.8.1 Methodology

The soil samples were collected in the month of **May 2020.** Soil samples were collected from 8 locations. The samples were filled in polythene bags, labeled in the field with number and site name and sent to laboratory for analysis. The test results are given in **Table-3.11**.

Particulars	Details
Frequency	One grab sample from each station once during the Study Period
Methodology	Composite grab samples of the topsoil were collected from 3m depth, and mixed to provide a representative sample for analysis. They were stored in airtight Polythene Bags and analyzed at the laboratory

Table 3.10: Soil Sample Collection Points

S. No.	Location Name	Direction	Distance from the project site (in km)
SQ1	Khabdoli	West	8.1
SQ2	Project Site	NA	0
SQ3	Parol	East	7.02
SQ4	Harsila	NW	4.54
SQ5	Simkhet	South	4.66

M/s Star Mines and minerals: Mining of Karuli shopstone and mine	Draft EIA/EMP
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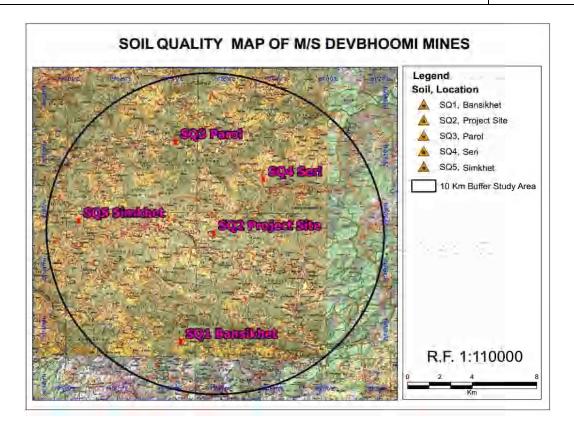
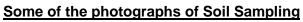


Figure 3.6: Location Map of Soil Sampling Sites





S.No	Parameter			SQ-1	SQ-2	SQ-3	SQ-4	SQ-5
		Test Method	Unit	Khabdoli	Project Site	Parol	Harsila	Simkhet
1	pH(1:2 suspension)	IS:2720		7.82	7.54	7.7	7.88	7.88
		(Part-26)						
2	Electrical Conductivity	IS:2720		340.26	250.46	220.12	280.4	223.5
	at 25 ^o C (1:2 suspension.)	(Part-21)	µmhos/cm					
3	Calcium (as Ca)	STP/SOIL	mg/kg	480.1	410.6	400.3	390.8	390.8
4	Magnesium(as Mg)	STP/SOIL	mg/kg	28.2	32.4	35.42	38.1	38.1
5	Organic Matter	IS:2720 (Part-22)	% by mass	0.46	0.64	0.38	0.26	0.27
6	Potassium(as K)	STP/SOIL	mg/kg	90.2	88.82	94.62	83.1	90.4
7	Water holding Capacity	STP/SOIL	% by mass	26.5	19.5	28.7	25.6	24.6
8	Porosity	STP/SOIL	Mq/100/gm	40.24	37.82	37.6	34.5	34.5
9	Texture	STP/SOIL		Sandy	Sandy	Sandy	Sandy	Sandy
			-	loam	loam	loam	loam	loam
10	Sand	STP/SOIL	% by mass	57.6	55.4	60	65.6	60
11	Clay	STP/SOIL	% by mass	22.8	26.6	24.1	18	20
12	Silt	STP/SOIL	% by mass	19.6	18	15.9	16.4	20
13	Sodium	STP/SOIL	mg/100g	190.2	206.1	180.1	200.08	190.5
14	Sodium Absorption Ratio	STP/SOIL	%By mass	1.22	1.09	1.34	1.14	1.12
15	Nitrogen	STP/SOIL	mg/100g	0.05	0.03	0.08	0.09	0.09
16	Phosphorus	STP/SOIL	mg/kg	0.8	0.42	0.64	0.86	0.86
17	Bulk Density	STP/SOIL	grm/cc	1.3	1.44	1.58	1.2	1.2
18	Infiltration Rate	STP/SOIL	mm/hr	13	15	9	12	12
19	Moisture	STP/SOIL	%	15.3	18	22.4	17.1	17.1
20	Sulphates	STP/SOIL	mg/1000g	55.2	63.4	48.6	51.6	57.4

Table – 3.11: Physicochemica	I Properties of Soil (.	Jan 2021)
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	21	Available Sulphur(as S)	STP/SOIL	mg/kg	22.6	25.4	28.36	25.78	24.62
	22	Available Manganese (as Mn)	STP/SOIL	mg/100g	2.14	1.86	1.74	1.06	2.56
ſ	23	Available Iron (as Fe)	STP/SOIL	mg/kg	46.4	38.26	36.28	41.26	40.8
	24	Sodium as Na	STP/SOIL	mg/kg	55.68	62.5	71.22	80.3	66.8

3.8.2 Results of Analysis of the Soil

Physical characteristics of soil were characterized through specific parameters viz bulk density, porosity, water holding capacity, pH, electrical conductivity and texture. Soil pH plays an important role in the availability of nutrients. Soil microbial activity as well as solubility of metal ions is also dependent on pH. In the study area, variations in the pH of the soil were found to be slightly basic 7.54 to 7.88. Electrical conductivity (EC) is a measure of the soluble salts and ionic activity in the soil. In the collected soil samples the conductivity ranged from $220.12 - 340.26 \mu$ mhos/cm.

The soils with low bulk density have favorable physical condition where as those with high bulk density exhibit poor physical conditions for agriculture crops.

3.9 LAND USE/LAND COVER MAPPING

> Coordinates of the mine lease area

Map with all corner coordinates of the mine lease area are super imposed on toposheet is shown in **Figure-3.7**.

To assess the land use pattern surrounding the 10 km radius of the site, a detailed study was carried out. The land use pattern study reveals that the 10 km environs is predominantly forest and agriculture area. The land use details are given in **Table-3.12**.

Sr. No.	Particulars	Percentage	
1	Settlements	4.30	
2	Water bodies	3.45	
3	Barren land	3.89	
4	Crop land	10.07	
5	forest area	78.29	
	Total	100.00	

Table 3.12: Land use of the study area

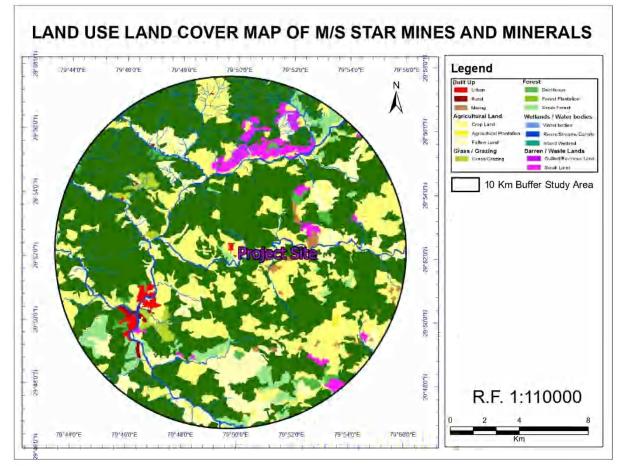


Figure 3.7 Land use delineation of 10 km radius area

3.10 TRAFFIC STUDY

Traffic study is carried out by understanding the existing carrying capacity of the road in the vicinity of site and flow towards State highway in the area. Then depending on the capacity of the mine, the number of trucks that will be added to the present scenario will be compared to the carrying capacity as recommended by Indian Road Congress (IRC). The existing volume of traffic and, the Level of Service are given in **Table-3.13 (i)** and shown in traffic density map as **Figure 3.8**.

Road	V (PCU/day)	C (PCU/day)	Existing V/C Ratio	LOS
Bageshwar – Dofar Dharamgarh Road	600	1100	0.54	В
V= Volume in PCU's/day	& C= Capacity in PCU's/ day			
During Mine operation				
Total Capacity of mine	: 2	4000 TPA		
No. of working days	: 2	40 days		

Table 3.13 (i): Existing Traffic Scenario & LOS

Total Capacity of mine/day	: 24000 /240 = 100 tonnes/day
Truck Capacity	: 9 tonnes
No. of trucks deployed per day	: 100/9 = 12 trucks per day
No. of trucks deployed/day to & fro	: 12*2=24 trucks
Increase in PCU/day	: 53

The addition to traffic by the proposed project during its operation is given table below:

Table 3.13 (ii): Additional Traffic Scenario & LOS due to proposed project

Road	V	С	Modified V/C Ratio	LOS
Bageshwar – Dofar Dharamgarh Road	653	1100	0.59	В

From the above analysis it can be seen that the V/C ratio is likely to be changed to 0.59 on Bageshwar – Dofar Dharamgarh Road with LOS remains "B" which is "Very Good" as per the classification. So the additional load on the carrying capacity of the concerned roads is not likely to have much significant adverse effect.



Figure 3.8: Transportation Route Map

3.11 BIOLOGICAL ENVIRONMENT

Biological diversity comprises the variability of species, genus and ecosystems and is very crucial for maintaining the basic processes on which the life depends. Broadly it can be divided in to two types i.e. the floral diversity and faunal diversity. Conservation of the biodiversity is essential for the sustainable development as it not only provides the food, fodder and medicine but also contribute in improvement of essential environmental attributes like air, water, soil, etc.

Before starting any Environmental Impact Assessment study, it is necessary to identify the baseline of relevant environmental parameters which are likely to be affected as a result of operation of the proposed project. A similar approach has been adopted for conducting the study on Biological Environment for this Project. Both terrestrial and aquatic ecosystems have been studied to understand the biological environment.

3.11.1 Methodology for the study

Detailed survey was conducted to evaluate floral and faunal composition of the study area. Primary data on floral and faunal composition was recorded during site visit and secondary data was collected from the Forest department and published relevant literature. Inventory of flora and fauna has been prepared on the basis of collected data.

Field study period: The ecological survey has been conducted for one season. All data were collected in pre monsoon season. The map showing the details of reserve forest within 10 km radius has been shown in **Figure 3.9.** The details are given as below:

Aspect	Data	Mode of data collection	Parameters monitored
	Primary data collection	By conducting field survey	Floral and Faunal diversity
Terrestrial Ecology	Secondary data collection	From authentic sources like Range office and Forest Department of Uttarakhand and available	Floral and Faunal diversity and study of vegetation, forest type, importance etc.
	Primary data collection	By conducting field survey	Floral and Faunal diversity
Aquatic Ecology	Secondary data collection	From authentic sources like Range office and Forest Department of Uttarakhand and available	Floral and Faunal diversity and study of vegetation, forest type, importance etc.

Table 3.14: Mode of data collection & parameters considered during the survey

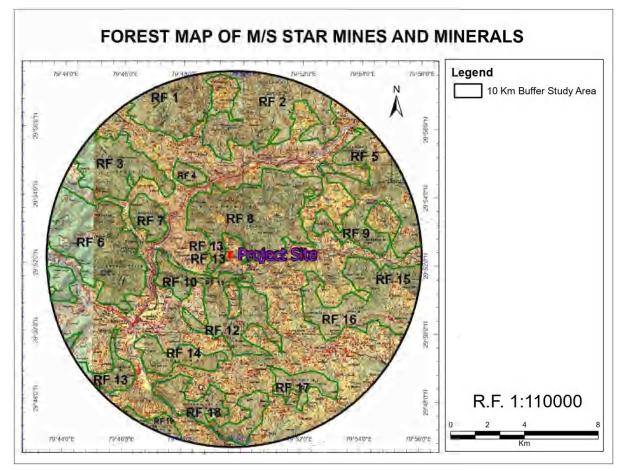


Figure 3.9: Details of reserve forest within 10 km radius

3.11.2 Physical Environment of the study area:

Bageshwar is one of the mountainous districts of Uttarakhand State. Prior to its formation as a separate district, Bageshwar constituted a part of Almora district. The district was included in Uttarakhand State after the state was carved out of Uttar Pradesh on 9th November 2000. The district lies between latitudes 29°40' and 30°20' N and longitudes 79°25' and 80°10' E (Survey of India Degree Sheet Nos. 53N and 53O). The district is bounded by Almora district in the south, Chamoli district in the north and northwest and Pithoragarh district in the east. The geographical area of the district is 1687.8 km² (Census, 2001).

3.11.2.1 Drainage:

Drainage of the area is mainly controlled by Saryu, Gomti and Pindar Rivers and their tributaries (locally called Nadi, Gad or Gadhera) *viz.* Pungar Nadi, Khir Ganga Nadi, Bhadrapati Nadi, Revti Ganga, Kanal Gad, Lahor Nadi, Jagtana Gad, Kulur Gad, Sukunda Gad etc. Sub-trellis, sub-rectangular and sub-dendritic are the most common drainage patterns in the area. The Central and North-Central parts of the district are drained by Saryu River. Gomti River drains the western and south eastern parts whereas Pindar River drains the northern part. These rivers are primarily fed by snowmelt with relatively smaller contribution from ground water. However, during the lean period, the rivers are fed by ground water occurring as base flow.

3.11.2.2 Climate:

January is the coldest month with mean maximum temperature of 10° C, the mean minimum temperature being about 2°C. Temperature drops down to – 6°C during January and February in the northern part of the district. June is the warmest month with the mean maximum and the mean minimum temperatures of 25°C and 15°C respectively. The Relative Humidity increases rapidly with the onset of monsoon and reaches at about 80% during July to September. The driest part of the year is the pre-monsoon period, when the humidity is as low as 30% in the afternoons. Skies are heavily clouded during the monsoon months and for short spells when the district is affected by Western Disturbances. Two broad wind patterns are observed in the district *viz.* north easterly to easterly (May to September) and south easterly to westerly (October to March).

3.11.2.3 Agriculture:

Agriculture is the main occupation of the people. However, intensive cultivation is not possible as major part of the district is mountainous. Agricultural activities are common on gentle hill slopes and in relatively plain, broad river valleys of Gomti and Saryu Rivers. Rice, wheat, mandua, barley, maize and sawan are the principal cops grown in the district. Garur valley has the maximum cultivated area. Due to high production of rice, the area is known as "Rice Bowl of Kumaun".

3.11.3 Forests cover and Forest Type:

The forest of the district includes the vast range found in the Himalayas, varying from the subtropical species which grow in the outer ranges of low hills to the rich Alpine vegetation in the north. Uttarakhand covers an area of 53, 483 sq km which is 1.63 % of the geographical area of the country as mentioned in the India State of Forest Report 2017 and 45.80% of the state's geographical area. In terms of forest canopy density classes, the state has 4762 km² area under very dense forest, 14167 km² area under moderately dense forest and 5567 km² area under open forest. Out of 2246 km² total area of Bageshwar district, 194 km² area is under very dense forest, 883 km² fall under moderately dense forest and 304 km² area is open forest (61.49% area of district encompasses forest cover).

As per Champion and Seth (1968), the project site included following types of forests.

- Very dense forest
- Moderate dense forest
- Open forest
- Scrub

Pre – Monsoon	:	March-May 2020
Survey sites	:	Around the project site in 10 km radius
Core zone	:	At the project site (100m)
Buffer zone	:	Around the project site in 10 km radius.

3.11.4 Taxonomic Diversity: Floristic of Terrestrial Ecosystem

The magnificent Himalaya is well recognized for its bio-physical diversity and socio-cultural Heritage, unique physical and ethnic diversity, traditional systems and an ample quantity of

Indigenous knowledge. It forms one of the Global Biodiversity Hotspots-the Himalayan Biodiversity Hotspot.

S. No.	Botanical Name	Family	Local Name / English	Availability
1.	Phoenix humlis	Arecaceae	Khajoor	Occasional
2.	Acacia catechu	Mimosaceae	Khair	Occasional
3.	Prunus armenica	Rosaceae	Chulu	Common
4.	Adina cordifolia	Rubiaceae	Haldu	Common
5.	Terminalia chebula	Combretaceae	Harad	Common
6.	Bombax ceiba	Bombacaceae	Semal	Common
7.	Ficus religiosa	Moraceae	Pipal	Common
8.	Syzygium cumuni	Myrtaceae	Jamun	Common
9.	Populus ciliata	Salicaceae	Pahadi Pipal	Common
10.	Pyrus pyr ifolia	Rosaceae	Nashpati	Common
11.	Erythrina suberosa	Fabaceae	Dhak	Common
12.	Čedrus deodara	Pinaceae	Devdar	Common
13.	Ficus nemoralis	Moraceae	Dudhla	Common
14.	Shorea robusta	Dipterocarpaceae	Saal	Common
15.	Dalbergia Sissoo	Fabaceae	Shisham	Common
16.	Litsea chinensis	Lauraceae	Lauraceae	Common
17.	Pyrus pashia	Rosaceae	Mehal	Common
18.	Ficus glomerata	Moraceae	Gular	Common
19.	Lagerstroemia indica	Lythraceae	Gulbahar	Common
20.	Quercus semecarpifolia	Fabaceae	Khairu	Rare
21.	Quercus leucotrichophora	Fabaceae	Banj	Common
22.	Sapindus mukurossi	Sapinadaceae	Reetha	Common
23.	Cassia fistula	Caesalpiniaceae	Amaltash	Common
24.	Mangifera indica	Anarcardiaceae	Aam	Common
25.	Emblica officinalis	Euphorbiaceae	Amla	Common
26.	Castanopsis tribuloides	Fagaceae	Katauni	Common
27.	Machilus duthiei	Lauraceae	Kaula	Rare
28.	Salix wallichiana	Salicaceae	Bains	Occasional
29.	Dendrocalamaus strictus	Poaceae	Bans	Common
30.	Aegle marmelos	Rutaceae	Bel	Common
31.	<i>Betula</i> utilis	Betulaceae	Bhuj	Occasional
32.	Grewia optiva	Tiliaceae	Bhimal	Common
33.	Salix babylonica	Salicaceae	Salicaceae	Common

Table 3.15: Tree species recorded in the study area during winter season 2020-2021

Source: Field survey & Bageshwar forest department.

Table 3.16: Tree, shrub & herb species recorded in the study area during winter season 2020-2021

S. No	Botanical Name	Family	Local Name / English	Local Availability
1.	Lespedeza eriocarpa	Fabaceae	Khunju	Common
2.	Schefflera venulosa	Araliaceae	Khadsemal	Common
3.	Viburnum erubescens	Caprifoliaceae	Gani	Common
4.	Viburnum mullaha	Caprifoliaceae	Ricchoi	Occasional
5.	Viburnum nervosum	Caprifoliaceae	Gadbiya	Occasional
6.	Carissa opaca	Apocynaceae	Karaunda	Occasional

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7.	Rubus niveus	Rosaceae	Kala Hinsalu	Occasional
8.	Dioscorea deltoidea	Dioscoreaceae	Taroi	Occasional
9.	Murraya exotica	Rutaceae	Kamini	Common
10.	Berberis asiatica	Berberidaceae	Kilmoda	Common
11.	Lantana camara	Verbenaceae	Kuri	Common
12.	Nyctanthes arbor-tristis	Oleaceae	Harsingar	Common
13.	Artemisia vulgaris	Asteraceae	Kurinja	Common
14.	Plectranthes rugosus	Lamiaceae	Kurkha	Common
15.	Smilex aspera	Liliaceae	Kukurdada	Common
16.	Skimmia anquetilia	Rutaceae	Kedarpati	Occasional
17.	Rubus biflorus	Rosaceae	Achhai	Common
18.	Asparagaus racemosus	Liliaceae	Satavar	Common
19.	Viburnum cotinifolium	Caprifoliaceae	Ghinna	Common
20.	Randia tetrasperma	Rutaceae	Ghighari	Common
21.	Rhus continus	Anacardiaceae	Tung	Common
22.	Cassia tora	Caesalpiniaceae	Chakunda	Common
23.	Pleurospermum	Apiaceae	Gugal	Rare
	densiflorum			
24.	Mimosa pudica	Mimosaceae	Chuimui	Common
25.	Strobilanthes wallichii	Acanthaceae	Jaanu	Common
26.	Rubus duthieamus	Rosaceae	Jogi	Common
27.	Phoenix acaulis	Arecaceae	Thakal	Rare
28.	Taraxacum officinale	Asteraceae	Dudhiya	Common
29.	Datura stramonium	Solanaceae	Dhatura	Common
30.	Mentha sylvestris	Lamiaceae	Pudina	Common
31.	Adhatoda vasica	Acanthaceae	Basinga	Common
32.	Centella asiatica	Apiaceae	Brahmi	Common
33.	Salix elegans	Salicaceae	Kadvi	Common
34.	Zizyphus mauritiana	Rhamnaceae	Ber	Common
35.	Cannabis sativa	Cannabinaceae	Bhang	Common
36.	Ficus scandes	Moraceae	Chachri	Common
37.	Lawsonia inermis	Lythraceae	Mehndi	Common
38.	Euphorbia royleana	Euphorbiaceae	Suru	Common
39.	Terminalia chebula Retz.	Combretace	Harad	Rare

Source: Field survey & Bageshwar forest department.

Table 3.17: Climber species recorded in the study area during winter season 2020-2021

S. No	Botanical Name	Family	Local Name / English	Local Availability
1.	Rubus paniculatus	Rosaceae	Kathula	Common
2.	Milletia auriculata	Fabaceae	Gauj	Occasional
3.	Clematis montana	Ranunculaceae	Kenia	Common
4.	Tinospora cordifolia	Menispermaceae	Giloy	Rare
5.	Cryptolepis buchanani	Asclepiadaceae	Dudhibel	Common
6.	Holboellia angustifolia	Berberidaceae	Jangali sharifa	Occasional

Source: Field survey & Bageshwar forest department

Table 3.18: Parasite species (angiosperm) recorded in the study area during winterseason 2020-2021

S. No.	Botanical Name	Family	Local / English Name	Local Availability
1.	Cuscuta reflexa	Cuscutaceae	Amarbel	Common
2.	Taxillus vestitus	Loranthaceae	Pand	Common
3.	Viscum nepalense	Loranthaceae	Budu	Common
4.	Dendrophthoe falcata	Loranthaceae	Banda	Common

Source: Field survey & Bageshwar forest department.

Table 3.19: Bamboo species recorded in the study area during winter season 2020-2021

S. No.	Botanical Name	Family	Local / English Name	Local availability
1.	Arundinaria alcate	Poaceae	Gol Ringal	Common
2.	Dendrocalamus hamiltonii	Poaceae	Kako Bans	Common
3.	Dendrocalamus somdevii	Poaceae	Bans	Common
4.	Dendrocalamus strictus	Poaceae	Bans	Common

Source: Field survey & Bageshwar forest department.

Table 3.20: Grass species recorded in the study area during winter season 2020-2021

S. No.	Botanical Name	Family	Local/ English	Local
			Name	availability
1.	Saccharum munja	Poaceae	Munj	Common
2.	Eragrostis curvula	Poaceae	Love grass	Common
3.	Seatria sphacelata	Poaceae	Setaria grass	Common
4.	Dactylis glomerata	Poaceae	Auchard grass	Common
5.	Saccharum spontaneum	Poaceae	Kans	Common
6.	Crysopogon gryllus	Poaceae	Kush	Common
7.	Cynodon dactylon	Poaceae	Dub	Common
8.	Sorghum halepense	Poaceae	Bajra	Common
9.	Cymbopogon maritinii	Poaceae	Babla	Common
10.	Themeda anathera	Poaceae	Piriya	Common

Source: Field survey & Bageshwar forest department.

Table 3.21: Non- flowering plant species in the study area during winter season 2020-2021

S. No.	Botanical Name	Family	Local / English name	Local availability
		Fern		
1.	Angiopteris evecta	Angiopteridaceae		Common
2.	Osmunda hilsenbergii	Osmundaceae		Rare
3.	Drynaria propinqua	Polypodiaceae		Common
4.	Microsorum	Polypodiaceae		Common
	membranaceum			
5.	Phymatopteris oxyloba	Polypodiaceae		Common
6.	Lygodium japonicum	Lygodiaceae		Common
7.	Pteris biaurita	Pteridaceae		Common
8.	Pteris vittata	Pteridaceae		Common
9.	Adiantum philippenese	Adiantaceae		Common
10.	Vittaria flexuosa	Pteridaceae		Common
11.	Sphenomeris chinesis	Lindsaceae		Common

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12.	Christella parasitica	Thelypteridaceae	Common
13.	Tectaria coadunata	Tectariaceae	Common
		Bryophyte	
14.	Anthoceros sp.	Anthoceroceae	Common
15.	Funaria hygrometrica	Funariaceae	Occasional
16.	Riccia sp.	Ricciaceae	Common
		Algae	
17.	Spirogyra sp.	Zygnemataceae	Occasional
18.	Chara sp.	Characeae	Occasional
19.	Nostoc sp.	Nostocaceae	Common

Source: Field survey & Bageshwar forest department.

During Pre monsoon season, a total of 113 species were recorded inhabiting land. The floral angiosperm diversity (94 species) was dominated by tree species (32); the other species recorded are shrub, herb (42), climber (06), parasitic angiosperm (04) and grass (10) species. The graph showing the Taxonomic diversity of terrestrial flora in the project area during winter season 2020-2021 has been shown in **Figure 3.10**.

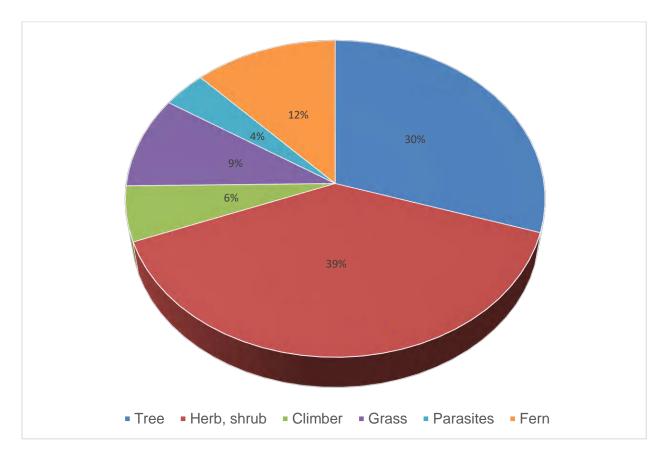


Figure 3.10: Taxonomic diversity of terrestrial flora in the project area during winter season 2020-2021

3.11.5 Economically Important Species

The terrestrial peculiarities make the Himalayan region a very diverse system subtending a wide range of flora types. The biodiversity of this region is severely vulnerable by natural and anthropogenic disturbances. During the field survey, numbers of plant species which are

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medicinally and economically importance in the area were recorded. These plants are used by local people for various purpose and also used as food and other devotions. A total of 19 Species of sparingly significant plants were recorded in the project area.

area				
S. No.	Botanical Name	Family	Local / English Name	Life form
1.	Asparagus adscendens	Liliaceae	Shatavar	Herb
2.	Quercus leucotrichophora	Fagaceae	Banj	Tree
3.	Juglans regia	Juglandaceae	Akhrot	Tree
4	Ficus religiosa	Moraceae	Pinal	Tree

Table 3.22: Economically & medicinally important plant species recorded in the project area

υ.	ougiano rogia	ougianaaooao	/	1100
4.	Ficus religiosa	Moraceae	Pipal	Tree
5.	Ficus palmata	Moraceae	Bedu	Tree
6.	Ricinus communis	Euphorbiaceae	Arandi	Shrub
7.	Jatropha curcas	Euphorbiaceae	Safed Arand	Shrub
8.	Litsea umbrosa	Lauraceae	Chirar	Tree
9.	Symplocos crataegoides	Symplocaceae	Lodh	Tree
10.	Rhododendron arboreum	Ericaceae	Burans	Tree
11.	Prunus cerasoides	Rosaceae	Padam	Tree
12.	Bauhinia variegata	Caesalpinaceae	Kanchnar	Tree
13.	Bombax ceiba	Bombacaceae	Semal	Tree
14.	Cedrus deodara	Pinaceae	Deodar	Tree
15.	Hedychium spicatum	Zingiberaceae	Haldi	Herb
16.	Malaxis acuminata	Orchidaceae	Jivak	Herb
17.	Myrica esculenta	Myricaceae	Kaphal	Tree

Source: Field survey & Bageshwar forest department.

3.11.6 Fauna Diversity: Terrestrial Ecosystem

The list of fauna according are based on primary survey and multiples sources of data together with the operating plans of Bageshwar forest divisions, printed articles in scientific journals, publications of multiple sources of data like the Zoological Survey of India. During field surveys resulted in to updated information of the 48 species belonging to both vertebrate as well as invertebrate animal diversity. The faunal species recorded in the project area include; butterfly 06 species, avifauna 24 species and vertebrates 18 species. The percentage contribution of different species is dominated by birds and mammal. Two Schedule – 1 species have also been recorded in the study area and their conservation plan has been attached as **Annexure V.**

The graph showing the Taxonomic diversity of terrestrial fauna in the project area during winter season 2020-2021 has been shown in **Figure 3.11**.

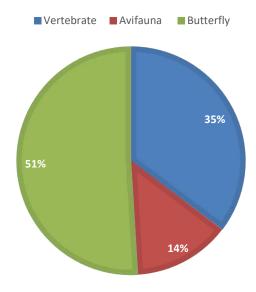




Table 3.23: Vertebrate's species recorded in the study area during winter season 2020-

2021

S. No.	Scientific Name	Common Name	Local	WPA, 1972	IUCN
			Availability		category
1.	Presbytis entellus	Common Langur	Common	II	NA
2	Macaca mulata	Rhesus Macaque	Common	II	NA
3.	Susscrofa cristatus	Indian wild Boar	Frequently	111	NA
4.	Felis chaus	Jungle cat	Frequently	II	LC
5.	Herpestes edwardsi	Common mongoose	Common	II	LC
6.	Vulpes bengalensis	Indian fox	Common	II	LC
7.	Vulpes vulpes	Red fox	Common	II	NA
8.	Hyaena hyaena	Strited hayena	Occasional		NT
9.	Lutra lutra	Common otter	Rare	II	NT
10.	Rousettus leschenaultia	Fulvous fruit bat	Common	-	NA
11.	Petaurista petaurista	Red flying squirrel	Common	II	LC
12.	Lepus nigricollis nigricollis	Indian hare	Common	IV	NA
13.	Axis exis	Spotted dear	Frequently		NA
14.	Cervus unicolor	Sambhar	Common		VU
15.	Muntinacus muntjak	Barking deer	Common		NA
16.	Panthera pardus	Leopard	Rare		NT
17.	Ursus thibetanus	Asiatic Black Bear	Rare	I	VU
18.	Canis aureus	Jackal	Common	II	LC

Source: Field survey & Bageshwar forest department.

Note: NA- Not assessed yet for IUCN category, LC- Least Concern, NT- Near threatened, VU-Vulnerable.

Table: 3.24: Avifauna (Bird) species recorded in the project area during winter season2020-2021

S. No.	Scientific Name	Common name	Local availability
1.	Motacilla alba	White wagtail	Frequent
2.	Certhia himalayana	Bar-tailed creeper	Common
3.	Garrulax albogularis	White throated laghing trush	Common
4.	Neophron percnopterus	Egyptian vulture	Common
5.	Gyps himalayensis	Himalayan griffon	Frequently
6.	Falco tinnunculus	Common kestrel	Common
7.	Francolinus francolinus	Black francolinus	Common
8.	Gallus gallus	Red jungle fowl	Frequently
9.	Vanellus indicus	Red wattled lapwing	Rare
10.	Columbia livia	Rock pigeon	Frequently
11.	Psittacula cyanocephala	Plum headed parakeet	Common
12.	Psittacula himalayana	Stay- headed parakeet	Frequently
13.	Eudynamys scolopacea	Asian Koel	Common
14.	Heirococyx sparverioides	Large Hawk Cuckoo	Common
15.	Heirococcyx varius	Common Hawk Cuck	Common
16.	Glaucidium radiatum	Jungle Owlet	Common
17.	Glaucidium brodiei	Collared Owlet	Common
18.	Coracias benghalensis	Indian roller	Common
19.	Dendrocopos auriceps	Brown-fronted woodpecker	Common
20.	Acridotheres fuscus	Jungle myna	Common
21.	Acridothes tristis	Common myna	Common
22.	Corvus splendens	House crow	Common
23.	Corvus macrocrhynchos	Large-billed crow	Common
24.	Sitta castanea	Chestnut-bellied Nut hatch	Common
25.	Pycnonotus cafer	Red vented bulbul	Common
26.	Dinopium benghalense	Black rumped flameback	Frequently

Sources: Field survey & Bageshwar forest department.

Table 3.25: Butterfly species recorded in the project area during winter season 2020-2021

S. No.	Scientific Name	Local availability	IUCN Status
1.	Pieris brassicae	Common	NA
2.	Pieris caniaidia	Frequently	NA
3.	Gonepteryx rhamni	Common	NA
4.	Colias fieldi	Common	NA
5.	Colias erate	Common	NA
6.	Lampides sp.	Common	NA
7.	Dilipa morgiana	Frequently	NA

Source: Field survey & Bageshwar forest department.

3.12 SOCIO-ECONOMIC ENVIRONMENT

Socio-Economic status of the population is an indicator for the development of the region. Any development project of any magnitude will have a bearing on the living conditions and on the

economic base of population in particular and the region as a whole. Similarly, the proposed activities will have its share of socio-economic influence in the study area. The section delineates the overall appraisal of society relevant attributes. The baseline data collection of project on socioeconomic aspects in the study area has been done through the analysis of secondary data (Census 2011) available for the study area of 10 km radius around the project site. The information in the context was gathered on the following socio-economic parameters viz.

- Demographic profile
- Education levels
- Occupational Profile
- Cropping Pattern
- Other Socio-Economic Parameters.

3.12.1 Socio-Economic Impact Assessment

Socio-Economic Impact Assessment (SEIA) refers to the systematic analysis of various social and economic characteristics of the human beings living in the geographical / study area around the proposed project location. SEIA is carried out separately but concurrently with Environment Impact Assessment (EIA) study. The SEIA focuses on the likely effects of the project on social and economic well-being of the community. The impact(s) may be direct or indirect, positive or negative. In this Chapter of the EIA Report an attempt has been made to assess the composite Socio-Economic Impact of the project.

3.12.1.1 Steps taken to prepare the SEIA Report

Various steps taken to prepare the SEIA report were as follows

- Literature review
- Identification of habitations in the study area with the help of google earth and topo sheet
- Visit to project site
- Collection of secondary data
- Planning and designing of the field survey for collection of primary data
- Formulation of Data collection tools (Schedule/Questionnaire)
- Field testing of Schedule/Questionnaire through a pilot survey
- Briefing of field staff
- Scrutiny of filled-in-schedules
- Data processing and tabulation
- Data analysis and preparation of report.

3.12.1.2 Approach

Research approach plays an important role to decide suitable methodology. It helps to develop research design and increase the effectiveness of research study. In the present study

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inductive approach has been adopted, which is a bottom top approach. Under this approach first data is collected both from primary and secondary sources. After scrutiny, tables are generated in pre-designed formats. Subsequently, draft report is prepared after detail analysis of data. The final report is prepared after incorporating the comments and suggestions of the client.

3.12.1.3 Objectives of SEIA

The prime objective of the current study is to assess the likely impact of the project on socioeconomic characteristics of people living in the study area. Further, it is to be gauged whether the impact would be direct or indirect and whether the said impact would be positive or negative. Lastly, it is to be comprehended if the impact is negative and how the same could be mitigated.

3.12.1.4 Scope

The Scope of the study is as follows:

- a) Collection of baseline data of the study area.
- b) Collation of data, analyses and generation of tables.
- c) Comprehension of socio-economic status of the people living in the study area.
- d) Identification and inventory of probable impacts of the project on social and economic aspects in the study area.
- e) Assessment of the probable impacts of the project on the people living in the study area.
- f) Facilitation of sustainability of positive impact by recommending community development initiatives in the study area.
- g) Suggestion of mitigation measures in case of adverse impact.

3.12.2 Methodology

For composite Socio-Economic Impact Assessment of projects, the consultant carries out systematic analysis of the various socio-economic characteristics, both in terms of quality and quantity. Accordingly, both qualitative and quantitative data was collected from secondary sources. The secondary data was collected from the published data / information of the Census Authority. Records of the state and district administration were also referred. For collection of primary data, a sample survey was conducted in the study area which spans a radius of 10 km from the periphery of the boundary of the project site. In each selected habitation, a specified number of representative households were selected for collection of information through face to face interviews with head of the household or any responsible member of the family.

3.12.2.1 Census Survey

To assess the likely impacts of the project, Census data (viz. Population Census Abstract and Amenities- 2011) of all the habitations identified were taken into consideration to prepare the data base. It is treated as a census survey because all habitations located in the area were considered for the collection of information. Sample Survey was conducted for substantiating of socio-economic data got through the Census. Further, in selected habitation a household survey was

conducted by drawing representative sample of households. Since, collection of information from all the households in a habitation is time consuming and expensive, the sample survey approach was adopted for collection of information from the selection of villages and households in the village(s) / town(s).

3.12.3 Bageshwar District (Project District)

Bageshwar is a town and a municipal board in Bageshwar district in the state of Uttarakhand, India. It is located at a distance of 470 km from the National Capital New Delhi and 332 km from the State Capital Dehradun. Bageshwar is known for its scenic beauty, Glaciers, Rivers and Temples. It is also the administrative headquarters of Bageshwar district. Situated on the confluence of Sarju and Gomati rivers, Bageshwar is surrounded by the mountains of Bhileshwar and Nileshwar to its east and west and by the Suraj Kund in the north and Agni Kund in the south. Bageshwar was a major trade mart between Tibet and Kumaun, and was frequented by the Bhotia traders, who bartered Tibetan wares, wool, salt and Borax in exchange for Carpets and other local produces in Bageshwar.

3.12.4 Population Profile

The description of the project district is presented in **Table 3.26**. According to the 2011 census of India, Bageshwar has a population of 2, 59,898.

S.No.	District/Tehsil	Households	Population					
			Total	Male	%	Female	%	Sex ratio
1.	Bageshwar	57,941	2,59,898	1,24,326	47.84	1,35,572	52.16	1090

Table 3.26: Demographic details of Project District and Tehsil

Source: Census of India, 2011

3.12.5 Caste Wise Distribution of Population

Table 3.27 provides detailed information about the SC, ST population in Bageshwar district as well as on the Project area. The total SC population in Bageshwar district is 72,061 which is 27.72% of the total population, while ST population is 1982, which is 0.76% of the total population.

SI.	District/Project	Schedule Caste (SC)		Schedu	le Tribes (ST)
No.	Area	Total	% of SC	Total	% of ST
1	Bageshwar	72,061	27.72	1,982	0.76

Source: Census of India, 2011

3.12.6 Literacy Rate

District Bageshwar: The literate population in Bageshwar district is 1,79,483, out of which male & female are 97,546 and 81,937 respectively. The male literates represent 54.35% while female represent 45.65% of the total population.

The details of literacy rate and literate people in Bageshwar tehsil and district are provided in **Table 3.28.**

S. No	District/Project Area	Num	ber of Lite	Literacy Rate %		
3. NU	District/Project Area	Total	Male	Female	Male	Female
1	Bageshwar	1,79,483	97,546	81,937	54.35	45.65
Source: Census of India 2011						

Table 3.28: Literacy Rate of Project District and Project Area

Source: Census of India, 2011

3.12.7 Ethnographic Profile of Project State and Project District

The various Scheduled Castes and the Scheduled Tribes in Project district area are Agariya, Dom, Dhobi, Dhangar and Bhotiya, Jaunsari, Tharu etc.

The list containing the names of the Scheduled Castes and the Scheduled Tribes applicable for the Census of India 2011 in the Project State are given below Table 3.29 (a & b):

Table 3.29 (a): List of Schedule Caste in the Project District

S.NO	Name of SC	S.NO	Name of SC
1.	Agariya	34.	Patari
2.	Badhik	35.	Saharya
3.	Badi	36.	Dhangar
4.	Baheliya	37.	Dhanuk
5.	Baiga	38.	Dharkar
6.	Baiswar	39.	Dhobi
7.	Bajaniya	40.	Dom
8.	Bajgi	41.	Domar
9.	Balahar	42.	Dusadh
10.	Balai	43.	Gharami
11.	Balmiki	44.	Ghasiya
12.	Bangali	45.	Gond
13.	Banmanus	46.	Gual
14.	Bansphor	47.	Habura
15.	Barwar	48.	Hari
16.	Basor	49.	Hela
17.	Bawariya	50.	Kalabaz
18.	Beldar	51.	Kanjar
19.	Beriya	52.	Kapariya
20.	Bhantu	53.	Karwal
21.	Bhuiya	54.	Khairaha
22.	Bhuyiar	55.	Kharwar (excluding banbasi)
23.	Boria	56.	Khatik
24.	Chamar, Dhusia, Jhusia, Jatawa	57.	Khorot
25.	Chero	58.	Kol
26.	Dabgar	59.	Kori
27.	Majhwar	60.	Korwa
28.	Mazhabi	61.	Lalbegi
29.	Musahar	62.	Sanaurhiya
30.	Nat	63.	Sansiya
31.	Pankha	64.	Shilpkar
32.	Parahiya	65.	Turaiha
33.	Pasi, Tarmali		

Source: Census of India, 2011

Bhotia
Buksa
Jaunsari
Raji
Tharu
-

Table 3.29 (b): List of Schedule Tribe in the Project District

Source: Census of India, 2011 3.12.8 Religion and Culture

Bageshwar is Hindu majority city with approximately 99.1% of district population following Hinduism as their religion. Muslim is second most popular religion in district with approximately 0.6% following it. In Bageshwar district, Christianity is followed by 0.2%. **Table 3.30** shows the Religious wise distribution of Population of Bageshwar District.

Description Total Percentage 257509 Hindu 99.1 Muslims 1440 0.6 Christian 397 0.2 Sikh 46 0.0 102 Buddhist 0.0 Jain 0.0 7 Others 16 0.0 Not Stated 381 0.2

Table 3.30: Religion wise distribution of Population of Bageshwar District

Source: Census of India, 2011

3.12.9 Economic Structure

The economy of the district is predominantly based on agriculture, as maximum per cent of the population resides in rural areas and their main occupation is agriculture. Kharif and Rabi are the two principal harvests grown in the district.

The **Table 3.31** given below describes two sections of workers main and marginal with a third category which is non-worker; the total number of workers at district level is 1,23,638 which is 47.57 percent of total population out of which main workers are 63.16 percent and marginal workers have a share of 36.84 percent while rest nearly 52.43 percent workers are non-workers.

Table 3.31: Main Workers,	Marginal Workers and Non-workers of Project District an	nd
	Project Area	

SI. No.	District/ Project Area	Total workers	Total worker %	Main workers	WORKORS		Marginal workers %	Non- workers	Non- workers %
1.	Bageshwar	1,23,638	47.57	78,085	63.16	45,553	36.84	1,36,260	52.43

Source: Census of India, 2011

3.12.10 List of Villages falling in the study area

The list of villages falling in the study area has been shown in Table 3.32.

S. No.	5		Aerial Distance from the proposed mine site
1)	Bhatni Kot	W	0.58
2)	Bang Dungariya	SW	0.88
3)	Sukyari	S	1.44
4)	Bilkhet	S	1.80
5)	Kwairali	SW	2.26
6)	Burghuna	S	2.82
7)	Mankot	S	3.74
8)	Gargaon	SW	3.10
9)	Kunara	SW	4.29
10)	Basai	S	5.14
11)	Baset	SE	4.94
12)	Suneri	SE	4.95
13)	Bantoli	SE	5.59
14)	Nayal	SE	5.57
15)	Tunera	SW	5.97
16)	Chata	S	6.60
17)	Dhunga	SW	6.92
18)	Kunkhet	SE	7.46
19)	Bhiri	S	8.13
20)	Arara	SW	8.15
21)	Matyoli	S	9.84
22)	Pagana	S	9.56
23)	Bhatgar	SW	9.39
24)	Bihargaon	SW	9.25
25)	Ghiroli	W	4.35
26)	Joshi Gaon	SW	4.23
27)	Falthiya	SW	4.54
28)	Chhati	SW	5.06
29)	Bageshwar	SW	6.40
30)	Village Tyunara	SW	7.50
31)	Bilona Sera	SW	7.94
32)	Pauri	SW	8.38
33)	Pauri Band	SW	9.40
34)	Kafoli	SW	9.17
35)	Borgaon	SW	9.48
36)	Bijori	SW	9.19
37)	Belta	SE	9.45
38)	Khali	SW	8.38
39)	Kohli Village	SW	8.42
40)	Matiyoli	SW	5.43
41)	Namtichetabagar	SW	5.73
42)	Bari Khalsa	SW	6.47
43)	Kaphalket	SW	6.75
44)	Adoli	SW	5.75
45)	Chirang	NW	1.35
46)	Gajali	N	0.91

Table 3.32: List of villages falling in the study Area

M/s Star Mines and minerals: Mining of Karuli shopstone and mine Draft EIA/EMP soapstone from Lease Area (7.841 ha.) at Village - Karuli, Tehsil & District Bageshwar, State Uttarakhand

47)	Kaulag	NW	1.79
48)	Khuldori	NW	2.55
49)	Kukrauli	NW	3.72
50)	Manikhet	NW	4.65
51)	Kukragar	NW	6.29
52)	Chamerta	NW	8.40
53)	Tulyari	NW	9.49
54)	Harwar	NW	8.26
55)	Syaldoba	NW	5.51
56)	Gwar	NW	4.90
57)	Anarsa	NW	4.64
58)	Sima	N	4.22
59)	Harsila	NW	4.64
60)	Chalkana	N	5.96
61)	Kapholi	NW	6.75
62)	Nankanyalikot	NW	8.10
63)	Pundra Pali	NW	7.65
64)	Purkot	NW	6.91
65)	Falnate	NW	6.32
66)	Chachai	NW	7.64
67)	Jakh	NW	9.36
68)	Devalchaura	NW	3.96
69)	Dungari	Е	2.07
70)	Chaura	NE	2.94
71)	Chhatikhet	E	4.52
72)	Rithayat	E	5.98
73)	Naughar	E	7.54
74)	Moudiyar	E	8.88
75)	Gurgucha Úpadhya	NE	4.55
76)	Papu	NE	5.06
77)	Gapani	NE	3.27
78)	Kamketpani	NE	4.29
79)	Palen	NE	5.93
80)	Batal Gaon	NE	5.39
81)	Pakar	NE	7.10
82)	Fusera	NE	7.52
83)	Gwatoli	NE	6.66
84)	Nari	NE	7.72
85)	Sundil	NE	9.07
86)	Kande Thapliya	NE	8.28
87)	Baskunda	NE	9.32
88)	Ukhal Dhar	NE	6.23
89)	Rainthal	NE	6.43
90)	Khadgera	NE	7.37
91)	Ason	NE	8.89
92)	Utaraura	NE	8.53
93)	Poling	NE	7.76
94)	Jankuri	NE	7.60
95)	Chhuriya Panaura	NE	8.78
96)	Gainar	NE	9.41
97)	Reetha Bagar	NE	7.26
98)	Lili	NE	8.55

M/s Star Mines and minerals: Mining of Karuli shopstone and mine Draft EIA/EMP soapstone from Lease Area (7.841 ha.) at Village - Karuli, Tehsil & District Bageshwar, State Uttarakhand

99) Karuli SE 0.54 100) Simtola SE 1.30 101) Gairar SE 1.65 102) Khuna SE 1.65 102) Khuna SE 2.15 104) Sela SE 2.43 105) Era Gunth SE 3.05 106) Ujera SE 3.48 107) Jol Gaon SE 3.92 108) Dewali Gunth SE 4.37 109) Dhigartola SE 5.03 110) Jaltha Kot SE 6.25 111) Dhapoli SE 8.17 112) Kwairali SE 8.17 113) Jethai SE 9.50 114) Alkanaya SE 8.14 115) Lohar Khet SE 7.91 116) Menhara Gaon SE 8.68 117) Pang Chora SE <t< th=""><th></th></t<>	
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125) Jagthali Gunth SE 9.61 126) Delmel SE 8.90 127) Mithun Kot SE 9.04 128) Pokheri SE 9.76 129) Hathraiya SE 8.74 130) Bijepur SE 9.15 131) Kunera SE 7.32 132) Bhanker Pant SE 7.05 133) Majbe SE 6.33 134) Bakhet SE 6.81 135) Dofar Laggakakrt SE 6.16	
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127) Mithun Kot SE 9.04 128) Pokheri SE 9.76 129) Hathraiya SE 8.74 130) Bijepur SE 9.15 131) Kunera SE 7.32 132) Bhanker Pant SE 7.05 133) Majbe SE 6.33 134) Bakhet SE 6.81 135) Dofar Laggakakrt SE 6.16	
128) Pokheri SE 9.76 129) Hathraiya SE 8.74 130) Bijepur SE 9.15 131) Kunera SE 7.32 132) Bhanker Pant SE 7.05 133) Majbe SE 6.33 134) Bakhet SE 6.81 135) Dofar Laggakakrt SE 6.16	
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131) Kunera SE 7.32 132) Bhanker Pant SE 7.05 133) Majbe SE 6.33 134) Bakhet SE 6.81 135) Dofar Laggakakrt SE 6.16	
132) Bhanker Pant SE 7.05 133) Majbe SE 6.33 134) Bakhet SE 6.81 135) Dofar Laggakakrt SE 6.16	
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134)BakhetSE6.81135)Dofar LaggakakrtSE6.16	
135) Dofar Laggakakrt SE 6.16	
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136) Rajoli SE 8.06	
137)Dhunga PantSE9.30	
138)BanstoliSE8.49	
139) Dyorakh SE 7.73	
140) Bhatgar SE 7.14	
141) Rankanda SE 6.37	
142) Painsiya SE 6.10	
143) Choni SE 5.63	
144) Thaklan SE 4.49	
145) Bheru SE 4.08	
146) Bhatora SE 3.59	
147) Khunoli SE 4.17	
148) Girari SE 2.80	
149) Methara SE 2.44	
150) Jal Gaon SE 3.91	

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151)	Nagha Sahu	SE	5.07
152)	Bahliya Mafi	SE	5.79

3.13 SOCIO-ECONOMIC IMPACT ASSESSMENT

3.13.1 Impact on Population Composition

No impact is envisaged on the population composition of the study area as there will be no inmigration or out-migration of villagers. Those who will be engaged in Soapstone mining will be recruited locally.

3.13.2 Impact on Employment

For extraction of Soapstone the project proponent has ensured that only local people will be recruited for the operation of the upcoming mine at village Kabhata. The exact number of people to be recruited will depend upon quantity of the minerals to be extracted over a period of time. In the initial period the number of such people will be less but gradually it will go up when the production will increase in a phased manner. The project proponent has planned to recruit locals for the operation of the upcoming mine. Though marginally, the dependency rate in the study area will decline by one percent with the commencement of the above soapstone mine. This is a positive impact of the project.

3.13.3 Increased Supply of Soapstone

Soapstone Powder is an important industrial mineral. The soapstone powder should be milky white, free from impurities and soapy feel. It is widely used as basic material in Cosmetic and Paper industry. It is an important raw material in the manufacture of talc in the cosmetic industry. It is also used in rubber, paper plastic and other allied industries. There is always a good demand for soapstone for industrial uses. With the commencement of the proposed mining project at village Kabhata, the supply of soapstone powder in the domestic market will increase by about 24000 per annum (maximum). This is a direct and positive impact of the upcoming mining project.

3.13.4 Impact on Approach Roads

Movement of trucks and other vehicles to and fro the quarry site is expected to increase substantially, when the operation of the mine will commence. The existing roads connecting the quarry with the national and state highways are mud roads and they are narrow. There will be mud slide and traffic bottle neck if these roads are not widened and their conditions are not improved by making them paved roads. Hence, there is a wide scope for road development in the area. This is a positive impact of the upcoming mining project. The proposed mining will lead to 31 nos of PCUs in the approach road; hence there shall be negligible impact on the approach road due to the proposed mining.

3.13.5 Impact on Law & Order

Since the workers will attend to their duties from their residence and return to their homes after the day's work is over there will be no law & order problem as such. On the other hand, if the workers are migrants and live in shanties closed to the mining area it may create law &

order problem and ethnic issues. To meet any untoward incident one police post may be set up close to the project area.

3.13.6 Impact on Vulnerable Groups of People

No impact is envisaged on vulnerable groups of people that include hospital patients, children, pregnant women and elderly persons. There will be no re-habilitation and resettlement issues that may adversely affect the people living adjoining the mine lease area. The social welfare activities to be taken up by the mine owner will definitely make positive impact on the living conditions of people including those who fall under vulnerable groups.

3.13.7 Income to Government

The proposed soapstone mining at village Kabhata will bring income for the state government in the form of royalty, dead rent and taxes. This is a positive impact of the project.

Extraction of soapstone may pose serious health risks if it is not handled carefully. It can affect the body adversely if it is inhaled or if it comes in contract with eyes or skin. Exposure to soapstone may damage the lungs. Shortness of breath, cough, enlargement of the ends of the fingers and heart failure may occur due to continuous exposure to soapstone dust. There are reports of cancer cases among the workers engaged in mining of soapstone. Hence, preventive measures should be taken to protect oneself from the exposure of soapstone, while working in a soapstone mine. This is a negative impact of soapstone mining. The project proponent will undertake the following preventive measures, in order to protect the workers from the exposure of soapstone:

1) Consult to Physician

A physician will be consulted if anyone develops any sign or symptom caused due to exposure to soapstone.

2) Regular medical surveillances

Regular medical surveillances of the workers will be made. In case anyone get adversely affected due to soapstone mining the miner will be medically examined and provided medical assistances regularly. They will also be medically checked annually.

3) Provision of First Aid at mining site

Extraction of soap stones, from the mining site may pose serious health risks due to dust. To meet any emergency during extraction of the minerals from the mining site and subsequent loading in the transport vehicles, provision for First Aid will be made by the project proponent. Before the affected person is removed to a doctor or health institution for necessary medical aid, the miner will be provided with First Aid.

4) Tie up with the nearest PHC for medical help

At present there are no adequate health facilities available in the mining village. To meet the medical needs of the mine workers, tie-ups with nearest hospital or Primary Health Center (PHC) will be made. Few beds will exclusively be reserved for the mine workers in the above health institutions. This will ensure timely medical aid to the affected persons.

5) Supply of Masks and Gloves

The mine workers are subject to respiratory diseases, muscular-skeletal and gastro-intestinal disorders and skin diseases. For protection from dust it will be made compulsory for all mine workers to wear masks and gloves while working in the mines.

6) Health Camps

Health Camps will be organized at regular intervals preferably in every quarter. Further, free medical facilities will be made available to the workers and their family members.

7) Administration of Anti-venom injections

Provision of Anti-venom therapy will be made available at the nearest health institution. Anti-venom injections will be administrated to the mine workers in case of snake, spider and insect bites, while working in the mines.

8) Special telephone number

A special telephone number will be available to the mine workers. In case of emergency the miners can dial the above number for medical assistances. Vehicle will be provided to the patients in short duration for shifting to the health institution.

9) Special Group Insurance Scheme

All the mine workers will be covered under a Group Insurance Scheme of LIC or any other Insurance company.

3.14 CONCLUSION

The implementation of the soapstone mining project at village Karuli, Tehsil, District Bageshwar, and Uttarakhand will generate both direct and indirect employment. It will also promote legally valid mining in the area and bring income to the state exchequer. It is expected that intending entrepreneurs will venture to set up soapstone based industrial units in the near future making the area a mixed society, dependent on industry, trade and business. At present agriculture is the main occupation of the people as eighty percent of the total working population depends on it. With the implementation of the proposed mining project the occupational pattern of the people

in the area may change making more people engaged in industrial and business activities rather in agriculture. Thus there will be a gradual shifting of population from agricultural sector to mining and industry. Due to industrialization of the area, employment opportunities will further increase.

The study area is still lacking in infrastructure. It is expected that the same will improve to a great extent due to proposed mining project and associated industrial and business activities. It is therefore suggested that the commencement of the mining operation at village Karuli may be taken up on priority basis as employment opportunists are intended for the local aspirant.

CHAPTER 4: ANTICIPATED ENVIRONMENTAL IMPACTS & MITIGATION MEASURES

4.1 DETAILS OF THE INVESTIGATED ENVIRONMENTAL IMPACTS

This chapter provides a brief overview of the potential impacts on various environmental components due to the proposed opencast mining activities. The opencast mining operations in general cause environmental degradation and if adequate control measures are not taken to prevent/mitigate the adverse environmental impacts, these operations may cause irreversible damage to the eco-system. The environmental parameters most commonly affected by mining activities are:

- Topography and drainage;
- Air quality including Climate
- Noise levels and ground vibrations;
- Water resources and quality;
- Land use Pattern;
- ➢ Soil quality;
- Flora and Fauna;
- Socio-Economic conditions; and
- Occupational Health.

Various environmental impacts, which have been identified due to the mining activities, are discussed in the following Chapters and mitigation measures are suggested.

4.1.1 Impact on Drainage

Water table in this area is very deep ranging from 75 to 90m. No water problem is envisaged in the working pits since the rain water will be coursed through the garland drain to be provided on the upper side of the mine lease area and drainage on the benches provided on the hillside by slight slopping the benches. The only source of the water shall be the rainwater which shall flow along the natural slopes. The lesse have provided five check dams to course the water and control the flow of the scree material into the nala. The check dams have been proposed to restrict scree material from going to Nala to check further water pollution. There are no water bodies within the lease area. However there are seasonal tributaries or stream inside the leasehold areas; however, rain water flows down to southern slopes towards the valley causing no problem to the habitat. Thus there is no impact on drainage pattern of the area.

4.2 WATER ENVIRONMENT

4.2.1 Impact on Water Resources

Surface Water Resources

The topography of the area will not be largely changed in view of the proposed concurrent reclamation. During the mining activity period, there is a possibility of mixing of freshly disturbed

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material with the rain water. To take care of such happenings, retaining walls have been provided along the backfilled pits and along the soil and interburden dumps.

Groundwater Resources

The water table in hills is usually very deep and does not have any relevance with mining activities. However, concurrent restoration to original topography will not disturb the percolating water. The details of the site elevation and working depth are shown in **Table 4.1**.

Particulars	Details	
Elevation	1107 m to 1208 AMSL	
Ground Water Table	1250 mRL	
Ultimate working depth	12m	

Table-4.1 Site Elevation and Working Depth Details

4.2.2 Impact on Water Quality

Mining activities cause adverse impacts due to mine drainage, siltation due to storm water and contaminated water from workshops and domestic sewage water. Various components have been identified for study of impact of the mine operations.

> Impact on Surface Water Quality

The impact on water quality will be confined to increased suspended solids during rain. There are no water bodies within the lease area. There are no water bodies within the lease area. However there are seasonal tributaries or stream inside the leasehold areas; however, rain water flows down to southern slopes towards the valley causing no problem to the habitat. Before the commencement of rainy season, all the mined out pit shall be prematurely backfilled so chances of accumulation of rainy water in the mining pit shall be nil during first five years. Pungar river is approximately 1 km away from the mine lease area and there will be no impact on the river due to the proposed project.

The interburden to be generated will be temporary on nature & used for the purpose of backfilling each year before commencement of monsoon so that rain water will not accumulated in the mined out pit. It is however water sprinkling on the foot track shall be carried out during summer month to suppress the dust. Retaining wall shall be proposed along the slope of dump for its stabilization. The course of drainage shall not be disturbed due to mining & allied activities.

The topography of the area will not be largely changed in view of the proposed concurrent reclamation. During the mining activity period, there is a possibility of mixing of fleshly disturbed material with the rain water. To take care of such happenings, retaining walls have been provided along the backfilled pits and toe walls along the existing interburden dumps. Analysis results of surface water samples collected from rivers in the buffer zone indicate that the pH, total dissolved solids (TDS) are well below the prescribed limits.

No adverse impact was noticed. The mine water from sump will be used for water sprinkling and plantation purpose posing positive impact in buffer zone.

Impact on Ground Water Quality

Mine working will not go beyond 1515 m RL & depth of pit during next five years shall be 3-8m & water table will not be intersected by mining operations.

4.2.3 Wastewater Generation, Treatment & Disposal

The total water consumption in the Proposed Soapstone Mine shall be about 10 KLD. The water is used in the following purposes.

- For dust suppression
- For domestic consumption
- For greenbelt development

It is proposed to obtain water for drinking and operations from water sources under Gram *Panchayat* of Pacahr. There will no settlement near the site as the workers will be hired from nearby villages so no significant liquid effluent will be generated.

4.2.3.1 Measures for Minimizing Adverse Impacts

Seasonal drainage exists near to the project site. The mining is being carried in hilly region. The problem of ground water pumping will not arise. Rain water will not accumulate in the mining pit & it will be channelized along the slopes. The mining work will usually be confined within gullet driven from north-south & a ledge of about one meter height will be kept on the outer edge so that in discrete water flow will be avoided. The interburden and top soil will be used in backfilling. Further no significant impact on water quality is anticipated as material exposed will be low grade magnesite & is very feebly react with water that too when water becomes acidic. Even of reaction takes place it gives arise to increased temporary hardness of water. Water is being supplied from the spring. No hydrological studies have been carried out in the area.

Surface Water

- There is a possibility of mixing of freshly disturbed material with the rain water. To take care of such happenings, retaining walls have been provided along the backfilled pits and along the soil and interburden dumps.
- Monitoring of water will be carried out periodically. Water analysis will be carried out seasonally.

Ground Water Pollution

- The domestic sewage from the canteen and toilets will be routed to septic tanks.
- Regular monitoring of water levels and quality in the existing open wells and bore wells in the vicinity will be carried out. If found necessary, additional observation wells will be sunk for monitoring the water levels and quality around the mine representing both upstream and downstream conditions.

4.3 IMPACT ON LAND USE

Land use Pattern in Core Zone

The proposed opencast mine will result in change of land use pattern of the ML area. The land degradation is expected during mining activities like excavation, overburden dumping, soil extraction etc. Land requirement for the project has been assessed considering functional needs.

Various components of land environment have been identified for study of impact of the mining operations. Details of the same are given below:

Impact on land use & reclamation of mined out areas

Opencast mining activities may alter the landscape of the lease area and also cause some disturbance to the surface features of the surrounding areas. Mining will be done after leaving 7.5 m safety barrier.

Plantation will be developed in consultation with district administration/ local authority, wherever feasible.

The Existing land use pattern is agricultural land. The Existing land use pattern indicating the area already degraded due to quarrying/pitting dumping, roads, processing plants, workshop, township etc. in a tabular form is shown in **Table 4.2**.

Name of Land use	Forest	Crop	Grazing	Waste	Revenue	Total	Indicate land
	Land	Land	Land	Land	Land	(ha)	required
	(ha)	(ha)	(ha)	(ha)	(ha)		outside
							applied area
							(ha)
(a) Pit & Quarries	-	1.829	-	-	-	1.829	-
(b) Dumps of ore	-	0.025	-	-	-	0.025	-
waste &							
Overburden							
(c) Mineral stack	-	0.005	-	-	-	0.005	-
(d) Infrastructure	-	0.200	-	-		0.200	-
including of office,							
workshop, plants &							
road							
(e) Township	-	-	-	-	-	-	-
(f) others	-						
(i) Barren land							
(ii) Crop land		5.782				5.782	
Total area	-	7.841	-	-	-	7.841	-
(g) Area backfilled	-	1.829	-	-	-	1.829	-
by mine owners							
(h) Area afforested	-	-	-	-	0.459	0.459	-
by mine owners							

Table 4.2: Existing land use pattern

Source: Mine plan

The impact on land form or physiography will be land use on the hilly terrain will undergo radical changes due to the open cast mining. During the next five years mining, 2.798 ha land will be degraded due to mining & allied activities. The breakup of the land to be affected during the five years and end of conceptual period of due to mining operation is shown in **Table 4.3**:

Table 4.3: Breakup of the land to be affected during the five years and end of conceptual
period of due to mining operation

S.	Description	Area	Reclaimed	To be	To be	*To be	Remarks
No.	Description	(ha)	&	Reclaimed &	Reclaimed		
NO.		(iia)	Rehabilitat	Rehabilitated		& Rehabil-	
			ed till end	till the end of		itated after	-
			of last	present plan/	the end of		
			MP/MS	scheme	life of mine		(ha)
			period (ha)	period (ha)	(ha)	(ha)	
1	Mining (Quarry)	1.829	-	1.829	7.841	-	6.223
2	Waste dump	0.025	-	0.025			0.025
3	Office	0.009	-	0.009			0.009
	infrastructure						
4	Processing plant	-	-	-			
5	Mineral	0.005	-	0.005			0.005
	Stack/Processing						
	yard						
6	Sub grade	-	-	-			-
	mineral stacks						
7	Roads	0.191	-	0.191			0.764
8	Water	-	-	-			-
	course/pond/						
	reservoir						
9	Unutilized area	5.782		5.782			0.811
	Total	7.841		7.841			7.841

Note: All the quantities of top soil & interburden material to be generated by the end of plan/conceptual period shall be used for the purpose of reclamation over the mined unit land. Therefore no proposal for separate stacking of top soil and interburden dump has been proposed.

(A) Mining:

Mines out land	Crop/Nap land (ha)
(a) (i) Area already broken up	-
(ii) Area already backfilled	-
(iii) Area already reclaimed	-
(b) (i) Additional area proposed to be broken up during first 5 year	1.829
(ii) Additional area proposed to be backfilled	
iii) Additional area proposed to be reclaimed	1.829

(B) Dump:

(i) Are	Dump-Soil & Interburden (IB) ea occupied by dump	Crop/Nap land (ha) Soil- 0.013 IB- 0.012
(ii) Ad (iii)	ditional area to be covered by dump Dump area to be covered by protective measures	-
(C)	Plantation:	

C. Plantation	Revenue/Benap land (ha.)	Crop/Nap land (ha)
(i) Area already occupied	-	-
(ii) Area proposed to be covered under	-	0.459
plantation in next five years		

Solid waste generation and management

Disposal of Waste:

The top soil will be removed with the help of JCB machine, dozer, shovels, pickaxe, spade & crowbar and stacked separately. The soil intermixed with fragments and interburden rejects are low grade magnesite. Part of these rejects will be utilized in construction and maintenance of retaining walls, parapet walls, check dams and other construction works. About 36780 cum of rejects will be used for this task, and in dump yard remaining rejects about 85820 cum will be backfilled.

The quantity of top soil, interburden & mineral rejects to be generated in each year is shown in **Table 4.4:**

Year	Top Soil (cum)	Interburden (cum)	Mineral Rejects (cum)
I	3789.2	21618.94	25408.14
	4379.08	25913.76	30292.84
	5291.74	26294.31	31586.05
IV	3394.52	24454.03	27848.55
V	3020.88	24319.78	27340.66
Total	19875.42	122600.82	142476.24

Table 4.4: Details of Top soil, interburden & mineral rejects

Mitigation measures

- Access roads from public roads will be aligned in such a way that it would cause least damage.
- The banks cut for ramp will also be restored at the closing of mine during monsoon.

- Vegetation development is proposed along the lease area as restoration work.
- Plantation is proposed along the road sides, civic amenities in consultation with local/ govt. authorities. While selecting the plant species, preference will be given for planting native species of the area.

Storage and preservation of top soil:

The soil will be removed with the help of JCB machine, dozer, shovels, pickaxe, spade & crowbar and loaded manually to stack on the dump yard. Stacking will commence at RL 1215m to RL 1221m in first & second year, RL 1140m to RL 1143m in third year, RL 1119m to RL 1122m in fourth & RL1125m to RL RL 1128m in fifth year. The spread of stacks will be undertaken through mechanically and manually both & average dump height kept 1.5m. In first year 146 m² areas was earmarked for stacking of soil with 1.5m height. In second area it is 147 m² areas. Similarly in third, fourth & in fifth year 146 m², 145 m² and 146 m² area have been respectively earmarked for stacking of soil with 1.5m average height. The year wise spread of stack is shown in **Table 4.5**.

Soil stack	l year	ll year	III year	IV year	V year
Length	24m	26m	25m	27m	24m
Width	10m	10m	10m	10m	10m
Average height	1.5m	1.5m	1.5m	1.5m	1.5m
Angle of repose	36 ⁰				

Table 4.5: Details of Soil stack (year wise)

Proposal for reclamation of land affected by mining activities:

The mining will commence from the higher levels and will advance towards lower levels. Intermittent backfilling will commence from the higher levels and subsequently advance towards the lower elevation so that terraced agriculture fields would undertake in such a manner that original land use will be restored i.e. before the onset of monsoon will be handed over to cultivators for cultivation. The final backfilling will be started once the ultimate benches are formed and pit reaches the optimum economic depth. All recovery of the mineral will be of the saleable grade. The quantum of development and mineral to overburden soil and interburden in the pit is shown in **Table 4.6**.

Table 4.6: Quantum of development and mineral to overburden soil and interburden in the pit

Year	Overburden soil (cum)	ROM (Tonnes)	Interburden (cum)	Stripping ratio
I	25,408.14	20000	21618.94	1:0.43
I	32,251.35	24000	25913.76	1:0.41
111	34,115.63	24000	26294.31	1:0.40
IV	27,848.55	23000	24454.03	1:0.44
V	28,904.69	23000	24319.78	1:0.43
Total	148528.36	114000	122600.82	

4.4 IMPACT ON AIR ENVIRONMENT

4.4.1 Change in Ambient air and GLC

The air pollution impact of excavation in ordinary earth and boulders and rock is directly dependent upon construction methodology, annual rate of excavation, mode of transport within the construction site, mode of screening and method of crushing. The air pollution sources at the proposed project site can be broadly classified into three categories, viz. area source, line source and instantaneous point source.

Excavation by various activities in project area is construed as an area source which includes excavation pit(s) and activities happening in the excavation area like digging, dozing, hauling and loading/unloading. The dust emission from these areas will be fugitive in nature. The excavator operations, loading/unloading operations will also cause dust emission though it will be confined to the area of operation of the machinery. The gaseous emission from their operation shall be minimal and limited within the project.

Transportation of excavated material from the project site to dumping sites area categorized as line source. Since the dumper movement on haul road will be within the project area, no adverse impact shall be felt in the settlement area.

4.4.1.1 Dust Dispersion Modeling for Excavation Operation

In the present study, United States Environmental Protection Agency (USEPA-42 series) approved mathematical equations have been used to predict concentrations for different operations in project including the material transportation. To predict the particulate emissions, Envitrans AERMOD Cloud. (Air Dispersion Modeling Software) an interface based on ISCST3 – was used to predict changes in air quality i.e., maximum ground level concentration (GLC's) of Particulate Matter. Short term model options were opted for uniform emissions rates. The concentration of other gaseous pollutants i.e. SO2 and Nox was found to be much lower than the threshold limit (80 μ g/m3), the air modeling was restricted to determination of PM10 and PM2.5 in the present case. The emission factors adopted for various project operations are mentioned below:

Emission Factor for Excavation and Material Loading/unloading

For excavation and material handling the emission factor for PM_{10} has been adopted as per USEPA – 42 series.

For Dozing Operation:

 $EFPM_{10}$ (kg/hr) = 0.34 X s1.5 (%) / M1.4(%)

Where,

 $EFPM_{10}$ (kg/hr) = emission factor in kg/hr

S = silt contents in percentage by weight

M = moisture content in percentage by weight

For Material Loading/unloading:

 $EFPM_{10}$ (kg/hr) = 0.34 [0.119 / M0.9]

Where,

 $EFPM_{10}$ (kg/hr) = emission factor in kg/ton

M = moisture content in percentage by weight.

Emission Factor for Material Haulage within Project:

The emission rate is dependent on several factors which include soil properties, climatic conditions, vehicular traffic, wind forces and machinery operation. The Empirical equation for calculation of emission rate is as under.

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E= k*(1.7) *(s/12) *(S/48) *(W/2.7)0.7*(W/2.7)0.7 (w/4)0.5 * (365-p/365) g/VKT

Where,

E=Emission Rate

K = Particle size multiplier

s=Silt Content of the Road surface material

S= Mean Vehicle Speed (km/hr)

W=Mean Vehicle Weight (tons)

w=Mean number of wheels

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

Note: The emission factor for PM2.5 has been considered 60% of PM10.

The Isopleths developed are shown in **Figure 4.1 (a)** and **Figure 4.1 (b)** for PM_{10} and $PM_{2.5}$ **respectively.** The maximum GLC due to excavation, loading & unloading activities for PM_{10} and $PM_{2.5}$ was found to be 8.3 and 4.1 µg/m3 respectively and has been shown in **Table 4.7**.

Location	Pollutants	N-Cord.	E-Cord.	GLC (µg/m ³)
Project site	PM 10	29.870110°	79.835396°	8.3
Project site	PM 2.5	29.870110°	79.835396°	5.2

 Table 4.7 : Maximum Concentration at receptors

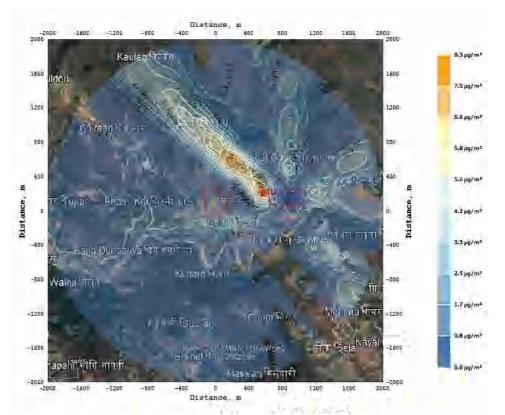
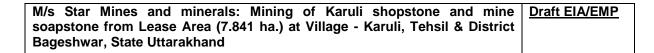


Figure 4.1 (a): Isopleth of Maximum Predicted 24 hourly Ground – Level Concentrations for PM₁₀



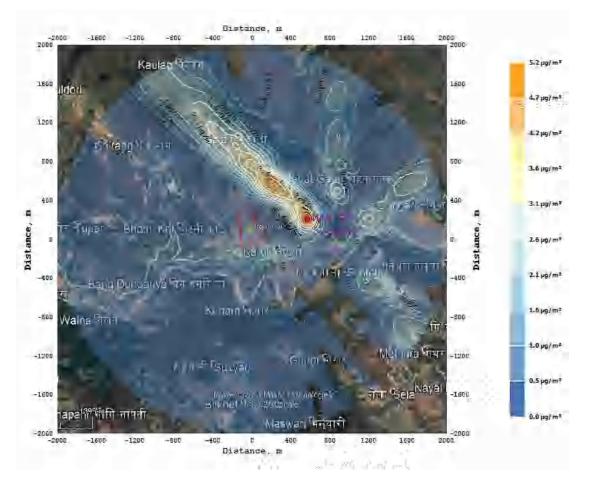


Figure 4.1 (b) : Isopleth of Maximum Predicted 24 hourly Ground – Level Concentrations for PM _{2.5}

4.4.1.2 Resultant Impact

The resultant impact due to construction activities (excavation and crushing) on the ambient air quality for PM_{10} and $PM_{2.5}$ at monitoring station project site respectively is presented in **Table 4.8** which shows that, the resultant concentration level is within the NAAQS.

Station Name	Pollutants	Sampling Station	Max. Conc. (µg/m3)	Predicted GLC (µg/m3)	Resultant concentration (µg/m3)	NAAQS (µg/m3)
Project site	PM10	AAQ 2	53.2	8.3	61.5	100
Project site	PM2.5	AAQ 2	27.1	5.2	32.3	60

 Table 4.8: Resultant levels due to excavation

4.5 PROPOSED MITIGATION MEASURES FOR DUST SUPPRESSION

Soapstone is a talcose rock mineral composed of hydrous magnesium silicate: **3** MgO-4Si02-H20. The specific gravity is around 1. Therefore emissions due to mineral handling during mining operation are not much and restricted to the lease area only. Air pollution is caused mainly due to dust generation added with gaseous emission from transportation activities along with mining operation like evacuation, loading, haulage etc. Proper mitigation measures will be

practiced during mining activities to control air pollution load below the prescribed limits. The same are as follows:

Control of Fugitive Emissions

- Use of Personal Protection Equipment's (PPE) like dust masks, ear plugs etc. by the mine workers.
- Ambient Air Quality Monitoring will be conducted on regularly basis to assess the quality of ambient air.
- Rock breaker will be used for breaking over size boulders in order to reduce dust and noise generation, which otherwise would be generated due to secondary blasting.
- Regular water sprinkling on haul roads & loading points will be carried out.
- Development of green belt/plantation around the lease boundary, roads, dumps etc.

Prevention and control of Gaseous Pollution

- Open cast manual method will be adopted in this case and there is no provision for blasting. The main source of gaseous emissions would be transportation.
- Approx 100 tonnes/day of soapstone will be produced per day and the transportation will be done with covered materials to prevent any spillage and also prevent fugitive dust emission due to wind.
- Any gaseous emission transportation will be negligible and not impact the ambient quality.
- Exhaust emission will be monitored of the trucks and to be kept below the permissible limit.
- Proper maintenance of machines improves combustion process & makes reduction in the pollution. Good maintenance and monitoring of fuel and oil will not allow significant addition in the gaseous emission.

The sources of pollutants from mining activities are given in **Table-4.9**.

Sr. No.	Source	Type of Pollutant	
1	Transport of Overburden or soil for dumping/ backfill	SPM	
2	Dumping of waste	SPM	
3	Loading of ore	SPM	
4	Transportation of ore	SPM, NOx	

Table 4.9: Sources of Pollutants

4.6 NOISE ENVIRONMENT

4.6.1 Noise Impact on Working Environment

As mining will be done by manual cum semi-mechanized means, noise will only be generated due evacuation, transportation activities. The noise generated by the mining activity dissipates

within the mine. There is no major impact of the mining activity on the nearby villages. However, pronounced effect of above noise levels is felt only near the active working area.

The impact of noise on the villages is negligible as the villages are far located from the mine workings. Since there is no involvement of major machinery, the impact of noise levels will be minimal.

4.6.2 Prediction of Noise Impact on Noise level

A noise propagation modeling study has been conducted to find out the impact from the noise generated because of the estimated total traffic flow during operation phase as well as the significance of these impacts. The noise modeling has been done taking into account the additional flow of traffic due to the proposed project. Dhwani PRO is a computer program developed to undertake construction, industrial and traffic noise propagation studies for noise assessment.

4.6.2.1 Outcome of the Noise level Modeling:

The outcome of the noise modeling is as follows:

• The predicted noise levels during both day and night time are within the prescribed limit and there will be no significant impact on noise due to the proposed project.

The Contour map showing noise level due to total traffic outcome has been shown in **Figure 4.2.**

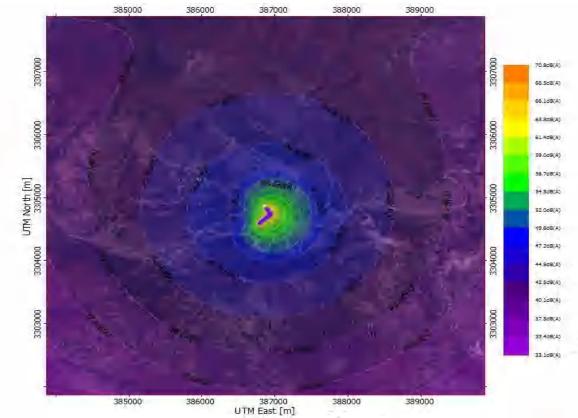


Figure 4.2:- Contour map showing noise levels due to total traffic outcome at the homogenous intersections of 2021 year

4.6.3 Noise Abatement and Control

In this mine the noise level will be upto tolerable limit (90 dbA) and the noise level can be reduced by:

- Proper maintenance, oiling and greasing of transport vehicles at regular intervals will be done to reduce the generation of noise.
- Adequate silencers will be provided in all the diesel engines.
- Plantation along the sides of approach roads, around office building and mine area will be done to minimize the propagation of noise.
- Personal Protective Equipments (PPE) like earmuffs/earplugs will be provided to all operators and employees working near mining machineries or at higher noise zone.
- Periodical noise level monitoring will be done.

Frequency levels and associated mental and physical response of humans are given in **Table-4.10**.

Noise Levels dB (A)	Exposure Time	Effects	
85	Continuous	Safe	
85-90	Continuous	Annoyance and irritation	
90-100	Short term	Temporary shift in hearing	
		threshold, generally with complete recovery	
Above 100	Continuous	Permanent loss of hearing	
	Short term	Permanent hearing loss can be avoided	
100-110	Several years	Permanent deafness	
110-120	Few months	Permanent deafness	
120	Short term	Extreme discomfort	
140	Short term	Discomfort with actual pain	
150 and above	Single exposure	Mechanical damage to the ear	

Table 4.10: Noise Exposure Levels & Its Effects

Source: Hand Book of EIA, Rao & Wooten

4.7 GREENBELT AND PLANTATION

Proposed Plantation at the Mine Site

The main aim of plantation in the mined out areas is to stabilize the land to protect it from rain and wind erosion. The plantation scheme broadly covers the following areas:

- Greenbelt around peripheral portions of the ML; and
- Plantation will be raised along the boundaries of the mining lease by planting the native species around ML area, backfilled and reclaimed area, around water body, etc. in consultation with the local DFO/Agriculture department. The density of the trees proposed for 5 years will be 5459 plants.

Greenbelt Development in ML area

The entire plantation will be done on the periphery of the reclaimed area. Precautionary measures will be taken for care of the forestation made by regular watering in the afforested area, to protect from grazing animals and proper manuring.

Number of Saplings to be Planted and Budgetary Estimate of the Green Cover

The breakup of the proposed afforestation programme with reclamation in progressive manner for entire life of mine is given in **Table 4.11**.

Year	Plantation in between lease boundary and UPL		
	Area (ha.)	No. of saplings	
2020-21	0.043	43	
2021-22	0.065	65	
2022-23	0.177	177	
2023-24	0.135	135	
2024-25	0.039	39	
Total	0.459	459	

Table 4.11: Year-wise Afforestation Schedule

*Besides these 5000 nos. of more samplings will be done all along the periphery of the mine lease area and in the nearby van panchayat land in Karuli, Hirmoli and Simtola villages. Total no. of trees shall be planted in the first two years and in the next three years its maintenance will take place. Local native species like Peach (Khubani), Pears (Nashpati), Apricot (Aaru), Plumk, Mehal, Kaphal, Chilmora etc. shall be planted.

The plants recommended for afforestation are as per Guidelines for Developing Greenbelts, CPCB, March 2000 and listed in **Table 4.12**.

SI.No.	Species	Family	Habit
1.	Alternanthera paronychioides	Amaranthaceae	Herb
2.	Alternanthera pungens	Amaranthaceae	Herb
3.	Grangea maderaspatana	Asteraceae	Herb
4.	Cassia tora	Fabaceae	Herb
5.	Brachiaria ramosa	Poaceae	Herb
6.	Cynodon dactylon	Poaceae	Herb
7.	Eleusine indica	Poaceae	Herb
8.	Eragrostis tenella	Poaceae	Herb
9.	Saccharum spontaneum	Poaceae	Herb
10.	Physalis minima	Solanaceae	Herb
11.	Calotropis procera	Asclepiadaceae	Shrub
12.	Cassia occidentalis	Fabaceae	Shrub
13.	Croton bonplandianum	Euphorbiaceae	Shrub

Table 4.12: Suitable Plant Species for Green Belt Plantation

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soapstone from Lease Area (7.841 ha.) at Village - Karuli, Tehsil & District	
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14.	Abutilon indicum	Malvaceae	Shrub
15.	Ziziphus mauritiana	Rhamnaceae	Shrub
16.	Datura innoxia	Solanaceae	Shrub
17.	Solanum virginianum	Solanaceae	Shrub
18.	Berberis vulgaris	Berberidaceae	Shrub
19.	Mangifera indica	Anacardiaceae	Tree
20.	Ficus racemosa	Moraceae	Tree
21.	Cassia fistula	Fabaceae	Tree
22.	Ricinus communis	Euphorbiaceae	Tree
23.	Albizia lebbeck	Fabaceae	Tree
24.	Bauhinia acuminata	Fabaceae	Tree
25.	Butea monosperma	Fabaceae	Tree
26.	Dalbergia sissoo	Fabaceae	Tree
27.	Bombax ceiba	Malvaceae	Tree
28.	Azadirachta indica	Meliaceae	Tree
29.	Quercus leucotricophera	Lauraceae	Tree
30.	Melia azedarach	Meliaceae	Tree
31.	Luecena leucocephala	Fabaceae	Tree
32.	Bauhinia variegata	Fabaceae	Tree
33.	Terminalia bellerica	Combretaceae	Tree
34.	Terminalia chebula	Combretaceae	Tree
35.	Morus alba	Moraceae	Tree
36.	Delonix regia	Fabaceae	Tree
37.	Pinus roxburgii	Pinaceae	Tree
38.	Celtis australis	Cannabaceae	Tree

4.8 BIOLOGICAL ENVIRONMENT

The baseline flora and fauna has been depicted in Section-3.11 of Chapter-3. There is no National Parks, Sanctuary, Breeding, roosting places or ecologically sensitive areas within the 10 km periphery of the mine lease area. However, most of the area surrounding to project site are covered with forest land. There no wildlife corridors in 10-km radius area.

No loss of forest resource is envisaged due to the project. No medicinal plants exist in the area.

4.8.1 Impact on Biodiversity

Present data have been collected through direct inventory as well as various Government Departments such as forests, agriculture, fisheries, animal husbandry and various offices to establish the pre-project biological environmental conditions. There are no endangered species, wildlife sanctuary, wildlife corridors, faunal migratory routes or eco-sensitive area near the whole study area. Save the flora/fauna around the project area, is one of the basic objective of present project. For this, mine owner agency planted a good roadside plantation along both side of the mine road.

The mitigative measures proposed are:

- Prior to mining, short awareness program will be conducted for labors to make them aware for way of working.
- No tree cutting, chopping, lumbering, uprooting of shrubs and herbs will be allowed.
- No track or new road for movement of labors or vehicles be laid in adjoining area, this will prevent fragmentation, encroachment and human animal encounter.

4.9 SOCIO - ECONOMIC ENVIRONMENT

The mine area does not cover any habitation. Hence the mining activity does not involve any displacement of human settlement. The mining operation will not disturb/ relocate any village or need resettlement. Thus no adverse impact is anticipated.

The impact of mining activity in the area is positive on the socio-economic environment of the region. The proposed Soapstone Mine will be providing employment to local population and it will be give preference to the local people whenever there is requirement of man power.

Probable Impact Assessment

Impact on population composition

The impact of the proposed mining project on population composition will be marginal as there will be no major immigration of people from distant areas. Only few skilled and managerial staff will be recruited from outside and the rest will be recruited locally. Similarly, there is no scope for emigration of people and there will be no displacement of people due to land acquisition. The Project Proponent will ensure that all the unskilled workers deployed for mining activities are local recruits. Further, no mining operation will be carried till it is assured that local people has been recruited and deployed for mining operation.

Impact on employment generation

The proposed mining project is expected to provide Direct and Indirect employment opportunities to local people of different skills and trades. It is a positive impact that needs to be encouraged. It has been estimated that 59 workers of various categories will be employed directly.

The employment potentiality of the project is expected to ameliorate the economic condition of the families of those persons who will get employed in the proposed mining project. Further, the project will provide indirect employment to people who will be involved in segregation of extracted mining materials, petty business and service oriented industries.

Impact on Health

Soapstone mining damages water supply as also a health hazard. Scarring of the lungs are the most frequently reported impacts of contact with polluted water and breathing problem due to Soapstone dust particles. There is a risk of death like lung cancer due chronic exposure and also a pleura disease due to inhale of Soapstone dust. These negative impacts of Soapstone mining needs to be viewed seriously.

Impact on consumption pattern

The field survey has revealed that people in the study generally poverty ridden. Increased household income may slightly change and enhance the consumption pattern of few who are burdened with poverty.

Impact on road development

Movement of trucks and other vehicles to and fro the quarry is expected to increase, when mining will start. There is mule road connectivity from the quarry to existing road. The existing roads connecting the quarry with the state highways are mostly narrow mud roads. There will be mud slide and traffic bottle neck if these roads are not widened and their conditions are not improved by making them paved roads. Hence, there is ample scope for road development in and around the mining areas. It is suggested that concerned department in the Government of the state to undertake widening and strengthening of existing roads connecting the mining sites on priority basis. There should also be budgetary support for road development in and around the mining areas.

Impact on law & Order

As local people will be employed to run the quarry, no law & order problem is envisaged. It is expected that the workers will attend to their duties from their residence and return to their homes after the day's work is over. There would have been law & order problem if the workers were migrants and lived in shanties closed to the mining area.

4.10 OCCUPATIONAL HAZARDS AND SAFETY

Occupational safety and health is very closely related to productivity and good employeremployee relationship. The factors of occupational health in soapstone mining project are mainly dust and land degradation. Safety of employees during operation and maintenance etc. shall be as per Mines rules and regulations.

To avoid any adverse effect on the health of workers due to various pollutants, sufficient measures relating to safety and health will also be practiced:

- Provision of rest shelters for mine workers with amenities like drinking water etc.
- All safety measures like use of safety appliances, such as dust masks, helmets, shoes, safety awareness programs, awards, posters, slogans related to safety etc.
- Training of employees for use of safety appliances and first aid in vocational training center.
- Regular maintenance and testing of all equipment as per manufacturers' guidelines.
- Periodical Medical Examination (PME) of all workers by a Medical Officer
- First Aid facility is provided at the mine site.
- Close surveillance of the factors in working environment and work practices which may affect environment and worker's health.

• Working of mine as per approved mining plan and environmental plans.

4.11 PUBLIC HEATH IMPLICATIONS

With the mitigation measures in relation to air pollution, water pollution, soil contamination and noise pollution proposed to be adopted at the mine along with green belt plantation along the periphery of Mining Lease boundary, it is expected that there will be no impact of mining on the population in the impact zone. However, the following measures shall be adopted: Health check of all villagers in the immediate vicinity of the mine shall be carried out periodically. In case any person or a group of persons is found to be suffering from any ailment, directly related to bauxite mining, their medical treatment will be carried out free of cost.

Surface water management shall be adopted to ensure that run-off from the mining are does not adversely affect natural water streams or other water bodies.

All water bodies e.g. wells and surface water sources in the vicinity of the mine, shall be periodically tested for any pollution related to mining operations and remedial action taken, if warranted.

Operators of all transport vehicles shall be instructed not to honk unnecessarily while passing through villages or near schools.

4.12 CORPORATE SOCIAL RESPONSIBILITY

Corporate Social Responsibility (CSR) refers to responsibility of a company to ensure positive impact on environment, consumers, employees, communities, stakeholders and all other members of public sphere. The CSR activities are increasingly being taken up by the project proponents not only as fulfilling of mandatory provisions but also for the formation and or enhancement of brand image. Besides the above, CSR is seen more as a responsibility towards society rather than a business promotion activity. It is the need of the day for expansion of occupational welfare. The activities to be undertaken for the local people under CSR have already been identified. It is expected that this will improve the socio-economic status of the local people and at the same time the popularity of the mining project will enhance. It is proposed to spend five percent of the total cost of the project for the benefits of the local community under CSR activities. The total cost of the project is around Rs. 40 Lacs and the amount earmarked for CSR activities has been worked out to Rs. 4 Lac. It is proposed to spend the above amount during the first five years of the commissioning of the mining project. Based on 'Community Needs Survey' conducted in the study area by the Consultant appointed by the company the following activities are proposed to be taken up for the benefits of the local community. The year wise allocation of funds for the various activities proposed to be taken up under CSR programme has been shown in Table 4.13.

The list of activities proposed to be taken up is indicated below:

- a) Health Camps
- b) Drinking Water Facilities
- c) Maintenance of foot track
- d) Donation for Temple Construction

- e) Donation for cultural activities in the surrounding areas
- f) Plantation of trees.

Table 4.13: Year wise allocation of funds for the various activities proposed to betaken up under CSR programme

S. No.	Activities	Allocation of Fund (Rs.)
1	Health Camps	25,000
2	Drinking Water Facilities	15,000
3	Maintenance of foot track	25,000
4	Donation for Temple Construction	15,000
5	Donation for cultural activities in the surrounding areas	20,000
	Total	1,00,000

For each activity the funds to be earmarked by the proponent will be decided after discussion with the local authority and the beneficiaries. It has been planned to undertake a concurrent evaluation of the activities to be taken up under the CSR programme.

4.13 IMPACT ON TRAFFIC

Traffic study is carried out by understanding the existing carrying capacity of the road in the vicinity of site and flow towards State highway in the area. Then depending on the capacity of the mine, the number of trucks that will be added to the present scenario will be compared to the carrying capacity as recommended by Indian Road Congress (IRC). The existing volume of traffic and, the Level of Service are given in table below.

Existing Traffic Scenario & LOS

Road	V (DCU/davi)	C (DCU/dav)	Existing V/C Ratio	LOS
Bageshwar – Dofar Dharamgarh Road	(PCU/day) 600	(PCU/day) 1100	0.54	В

V= Volume in PCU's/day	&	C= Capacity in PCU's/ day
During Mine operation		
Total Capacity of mine		: 24000 TPA
No. of working days		: 240 days
Total Capacity of mine/day		: 24000 /240 = 100 tonnes/day
Truck Capacity		: 9 tonnes
No. of trucks deployed per day		: 100/9 = 12 trucks per day
No. of trucks deployed/day to & fro		: 12*2=24 trucks

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Increase in PCU/day

: 53

The addition to traffic by the proposed project during its operation is given table below:

Road	V	С	Modified V/C Ratio	LOS
Bageshwar – Dofar Dharamgarh Road	653	1100	0.59	В

From the above analysis it can be seen that the V/C ratio is likely to be changed to 0.59 on Bageshwar – Dofar Dharamgarh Road with LOS remains "B" which is "Good" as per the classification. So the additional load on the carrying capacity of the concerned road is not likely to have much significant adverse effect.

CHAPTER 5: ANALYSIS OF ALTERNATIVES (TECHNOLOGY & SITE)

5.1 SITE ALTERNATIVES UNDER CONSIDERATION

The Soapstone has been identified based on the result of geological investigations and exploration carried out during prospective mining.

The mining projects are site specific as such alternate sites were not considered.

5.2 ANALYSIS OF ALTERNATIVE TECHNOLOGY

5.2.1 Choice of Method of Mining

Factors in the choice of an actual mining method for a given deposit are deposit characteristics, percentage recovery, requirement of health and safety and environmental concerns, production, scheduling scope of mechanization and automation, workforce requirements wage rates, land reclamation, operating and capital cost estimates. The selection of the mining method (development and extraction) is a key decision to be made in the opening up of a mine.

Surface or open pit mining is used for large, near-surface mineral deposits. Mineral is excavated, loaded into trucks, and hauled to a facility where it is crushed and ground to a uniform size for further processing. Surface mining requires the removal and disposal of layers of top soil and underlying rock commonly called the overburden. Mining must be planned so that the combine of mining processing and reclaiming the land is taken up concurrently.

The open cast mining method will be adopted because of the following reasons:

• The open cast mining operations ensure higher mineral conservation.

The method used for mining is efficient for Soapstone mining, so no alternative mining method is proposed.

CHAPTER 6: ENVIRONMENTAL MONITORING PROGRAMME

6.1 INTRODUCTION

The industrial development of any area needs to be intertwined with judicious utilization of nonrenewable resources of the study area and within the limits of permissible assimilative capacity. The assimilative capacity of the study area is the maximum amount of pollution load that can be discharged into the environment without affecting the designated use and is governed by dilution, dispersion and removal due to physico-chemical and biological processes.

The Environment Monitoring Programme is required to ensure sustainable development in the study area (10 km) of the project site, hence it needs to be an all-encompassing plan for which the plant authorities, Government, Regulating agencies like Pollution Control Board etc. working in the region and more importantly the affected population of the study area need to extend their co-operation and contribution.

6.2 IMPLEMENTATION SCHEDULE OF MITIGATION MEASURES

The mitigation measures suggested in Chapter-VI will be implemented so as to reduce the impact on the environment due to the operations of the proposed project. Implementation schedule of mitigation measures is given in **Table-6.1**.

Sr. No.	Recommendations	Time Requirement	Schedule
1	Air pollution control	Before commissioning of	Immediate
	measures	respective units	
2	Water pollution control	Before commissioning of the mine	Immediate
	measures		
3	Noise control measures	Along with the commissioning of	Immediate
		the mine	
4	Ecological preservation and	Stage-wise implementation	Immediate
	upgradation		&
			Progressive

Table 6.1 Implementation Schedule

6.2.1 Administrative Aspects & Environmental Monitoring Program

Regular monitoring of environmental parameters is of immense importance to assess the status of environment during project operation. With the knowledge of baseline conditions, the monitoring programme will serve as an indicator for any deterioration in environmental conditions due to operation of the project, to enable taking up suitable mitigatory steps in time to safeguard the environment. Monitoring is as important as that of control of pollution since the efficiency of control measures can only be determined by monitoring.

Usually, as in the case of the study, an Impact Assessment study is carried over short period of time and the data cannot bring out all variations induced by the natural or human activities. Therefore, regular monitoring programme of the environmental parameters is essential to take into account the changes in the environmental quality.

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soapstone from Lease Area (7.841 ha.) at Village - Karuli, Tehsil & District	1
Bageshwar, State Uttarakhand	1

6.2.2 Institutional Arrangements for Environment Protection and Conservation

The mine will be supervised and controlled by an independent Mines Manager supported by adequate team of technically and statutorily qualified personnel apart from the operating staff of skilled, semi-skilled, unskilled and other categories.

The organizational structure for Environment Cell for mining operations is shown in **Figure-6.1**. This Environment Cell is responsible for the management and implementation of the environmental control measures. Basically, this department will supervise the reclamation planning & management, air & water pollution control management, Liasoning with State & Central Statutory agency & Committee.

In case the monitored results of environmental pollution are found to exceed the allowable limits, the Environment Management Cell will suggest remedial action and get these suggestions implemented through the concerned authorities.

The Environment Management Cell will also co-ordinate all the related activities such as collection of statistics of health of workers and population of the region, afforestation and greenbelt development. The Environment Management Cell will review Corporate Environmental performance along with the reporting of non-compliances.



Figure-6.1 Organization Structure for Environment Management

6.3 ENVIRONMENT MONITORING PROGRAMME

Monitoring shall confirm that commitments are being met. This may take the form of direct measurement and recording of quantitative information, such as amounts and concentrations of discharges, emissions and wastes, for measurement against corporate or statutory standards, consent limits or targets. It may also require measurement of ambient environmental quality in the vicinity of a site using ecological/biological, physical and chemical indicators. Monitoring

may include socio-economic interaction, through local liaison activities or even assessment of complaints.

The environmental monitoring will be conducted in the mine operations as follows:

- Air quality;
- Water and wastewater quality;
- Noise levels;
- Soil Quality; and
- Greenbelt Development

The details of post project monitoring are presented in Table 6.2.

6.4 **REPORTING SCHEDULES**

Post project monitoring will be carried out as per conditions stipulated in environmental clearance letter issued by MoEF&CC, consent issued by SPCB as well as according to CPCB guidelines. The project site is considered as core zone and the area lying within 10 km radius from the mine site is considered as buffer zone, where some impacts may be observed on physical and biological environment. In the buffer zone, slight impact may be observed and that too is occasional, table below showing the details of Post Project Monitoring programme.

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Table-6.2 Post Project Monitoring Programme

Attributes	Sampling		Measurement Method	Test Procedure	
	Network	Frequency			
A. Air Environment					
Meteorological Wind direction Relative humidity Rainfall 	Minimum 1 site in the project impact area	Regularly in one season by Weather Monitoring Station	Mechanical/automatic weather station	-	
Pollutants	5 locations in the project	Once in a season.	Gravimetric method	-	
<u>PM10, PM2.5</u> SO2	impact area (Minimum 2 locations in upwind side, 2 sites in downwind side / impact zone and 1 in core zone)		Gravimetric method EPA Modified West & Geake method	Absorption in Potassium Tetra Chloro- mercurate followed by Colorimetric estimation using P-Rosaniline hydrochloride and Formaldehyde (IS 5182 Part - II).	
NO2			Arsenite modified Jacob & Hochheiser	Absorption in dil. NaOH and ther estimated colorimetrically with sulphanilamide and N (I Nepthyle) Ethylene diamine Dihydrochloride and Hydrogen Peroxide (CPCB Method).	

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pH, Turbidity, Colour, Odour, Taste, TDS, Total Hardness, Calcium hardness, Magnesium hardness, Chloride, Fluoride, Sulphate, Nitrates, Alkalinity, Iron, Copper, Manganese, Mercury, Cadmium, Selenium,	Set of grab Samples during pre and post- monsoon for ground and surface Water in the vicinity.	Diurnal and Season wise	As per IS 10500:2012	Samples for water quality should be collected and analyzed as per : IS : 2488 (Part 1-5) methods for sampling and testing of Industrial effluents Standard methods for examination of water and wastewater analysis published by American Public Health Association
Arsenic, Cyanide, Lead, Zinc, Chromium, Aluminum, Boron, Phenolic Compounds				
C. Noise	I	I		
Noise levels at Day & Night time - Leq dB (A)	Mine Boundary, High noise generating areas within the lease.	Quarterly / Half yearly	As per CPCB norms	As per CPCB norms
D. Soil				
pH, Bulk Density, Soil texture, Nitrogen, Available Phosphorus, Potassium, Calcium, Magnesium, Sodium, Electrical Conductivity, Organic Matter, Chloride	5 locations in the project impact area	Yearly/half yearly	As per USDA Method	As per USDA Method
E. Socioeconomic		•		
Demographic structure	Socio-economic survey is based on proportionate,		Primary data collection through Questionnaire	Secondary data from census records, statistical hard books, topo sheets, health

M/s Star Mines and minerals: Minir	ng of Karuli shopstone and mine soapstone from Lease Area (7.841 ha.) at Village -	Draft EIA/EMP
Karuli, Tehsil & District Bageshwar	, State Uttarakhand	

resource base • Economic resource base • Health status: Morbidity pattern • Cultural and Aesthetic attributes	sampling method		Records and relevant official rec available with Govt. agencies	cords
 Education 				

CHAPTER 7: ADDITIONAL STUDIES

7.1 PUBLIC HEARING

In consonance with the EIA notification dated 14th September 2006, vide section 1 (a) related to Public Hearing, the draft EIA/EMP report shall be submitted to the Uttarakhand Environment Protection & Pollution Control Board (UEPPCB) for public hearing.

7.2 RISK ASSESSMENT

The complete mining operation will be carried out under the management control and direction of a qualified mine manager. Moreover, mining staff will be sent to refresher courses from time to time to keep them alert. However, following natural/industrial hazards may occur during normal operation.

- Accident due to explosives;
- Accident due to mining equipment; and

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

- All safety precautions and provisions of Mine Act 1951, Metalliferrous Mines Regulations 1961 and Mines Rules,1955 will be strictly followed during all mining operations;
- Entry of unauthorized persons will be prohibited;
- Firefighting and first-aid provisions in the mines office complex and mining area;
- Provisions of all the safety appliances such as safety boot, helmets, goggles etc. will be made available to the employees and regular check for their use;
- Training for all the employees working in hazardous premises; Under Mines rules all employees of mines shall have to undergo the training at a regular interval;
- Working of mine, as per approved plans and regularly updating the mine plans;
- Regular maintenance and testing of all mining equipment as per manufacturer's guidelines;
- Suppression of dust on the haulage roads and loading & unloading points ;
- Increasing the awareness of safety and disaster through competitions, posters and other similar drives.

7.2.1 Blasting

No drilling & blasting is proposed as mineral is very soft in nature.

7.2.2 Overburden & Interburden

The overburden (soil) and interburden dumps may cause landslides. High overburden dumps created at the quarry edge may cause sliding of the overburden and interburden dump or may cause failure of the pit slope due to excessive loading, thereby causing loss of life and property. Siltation of surface water may also cause run-off from overburden and interburden dumps.

7.2.3 Machinery

Most of the accidents during transport by trucks, excavators and dozers and other heavy vehicles are often attributable to mechanical failures and human errors.

7.2.4 Water Logging

Water logging in the mine site can be avoided by adopting following measures:

- Due care will be taken to provide retaining wall around the pits.
- Proper drainage will be maintained to eliminate inundation of working pits during rains from run-off water.
- There is no danger of flood or inundation as the ground level.
- Mining operations are not carried below the ground water table; therefore, there will be no disturbance to ground water quality due to mining activity.

Natural resource conservation

- A green belt will be developed so that minimum soil erosion takes place.
- The excavated soil will be refilled in order to minimize the impact on environment.
- In any case the natural habitats of the existing flora and fauna will not be disturbed.
- Use of traditional knowledge in all aspects of conservation.
- Water conservation techniques will be employed.
- Time to time analysis of the soil, water resources etc will be done in order to analyze the negative impacts of mining activities on the environment.
- To prepare management plans for village landscapes. Villages to be seen as landscapes of diverse elements such as forests, scrub, grassland, streams/river, ponds etc.

7.2.5 Earthquake Management Plan

Following measures will be undertaken:

- The project site is mainly a plain area. There will be no drilling and blasting during mining.
- The ultimate pit wall will be kept to 45° and the slope angle of the inner benches will not be greater than 60° to 65° and bench height would be 9m.
- Slope will be stabilized with the help of *Chrysopogon zizanioides* grass to stabilize the slope

Flood Management Plan

• This is a soapstone mining project and the site is not close by to a water body so water bodies in the area will not be disturbed.

Natural resource conservation

- A green belt will be developed so that minimum soil erosion takes place.
- The excavated soil will be spread over the backfilled mined out area in order to minimize the impact on environment.
- In any case the natural habitats of the existing flora and fauna will not be disturbed.
- Use of traditional knowledge in all aspects of conservation shall be utilized.
- Water conservation techniques will be employed.
- Time to time analysis of the soil, water resources etc will be done in order to analyze the negative impacts of mining activities on the environment.
- To prepare management plans for village landscapes, villages to be seen as landscapes of diverse elements such as forests, scrub, grassland, streams/river, ponds etc. The dynamics of the village as an ecosystem to be assessed, corridors to be devised between major natural landscape elements, so as to facilitate movement of species.

7.2.6 Safety Measures

Safety Measures at the proposed Open Cast Mining Project

- The opencast mines have been planned for working with shovel tipper system which requires proper benching not only for slope stability but also for movement of tippers and other machinery. The inclination of the quarry sides at the final stage i.e. at the dip most point will not exceed 45^o to the horizontal. (This angle is measured between the line joining the toe of the bottom most bench to the crest of the top most bench and the horizontal line);
- The gradient of the haul road inside the pit, access trench and on the dumps will not be steeper than 1 in 16;
- The slope of the sides of the OB and IB dump to the horizontal will not exceed 37⁰, and the height of the OB and IB dumps has been restricted to a max of 12 m;
- The quarries will be protected by garland drains around the periphery for storm water drainage;
- A minimum safe distance of 50m will be kept between the surface edge of the quarry and the nearest public building, roads etc.

Measures Suggested to Avoid Accidents due to Blasting

• No drilling & blasting is proposed as mineral is very soft in nature.

Measures to Prevent the Danger of Overburden

• To prevent the failure of overburden slopes, especially during the rainy season, proper garland drain & bund are constructed around the dump.

Measures to Prevent Accidents due to Trucks and Tippers

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

7.3 DISASTER MANAGEMENT PLAN

7.3.1 Objectives of Disaster Management Plan

The Disaster Management Plan is aimed to ensure safety of life, protection of environment, protection of installation and restoration of production. For effective implementation of the Disaster Management Plan, it should be widely circulated and personnel training should be given.

The objective of the Disaster Management Plan is to make use of the combined resources of the mine and the outside services to achieve the following:

- Effect the rescue and medical treatment of casualties;
- Safeguard other people;
- Minimize damage to property and the environment;
- Initially contain and ultimately bring the incident under control;
- Secure the safe rehabilitation of affected area; and

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

Fire Fighting Facilities

Sufficient fire extinguishers will be installed at selected locations such as mine office, garage, stores etc.

Emergency Medical Facilities

An ambulance with driver availability in all the shifts, emergency shift vehicle would be ensured and maintained to transport injured or affected persons. Number of persons would be trained in first aid so that, in every shift first aid personnel would be available.

CHAPTER 8: PROJECT BENEFITS

8.1 IMPROVEMENT IN THE PHYSICAL INFRASTRUCTURE

The impact on the civic amenities will be substantial after the commencement of mining activities. The basic requirement of the community needs will be strengthened by extending health care, educational facilities developed in the township to the community, providing drinking water to the villages, building/strengthening of existing roads in the area. The proponent will initiate the above amenities either by providing or by improving the facilities in the area, which will help in uplifting the living standards of local communities.

Medical facilities will be provided in the form of first-aid facility at the mine. These medical facilities will also be available to local people in the surrounding in case of emergencies.

8.2 IMPROVEMENT IN THE SOCIAL INFRASTRUCTURE

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

In addition to above, due to increase in purchasing power of local habitants:

- There will be significant change in the socio-economic scenario of the area.
- The proposed project will enhance the prospects of employment. Recruitment for the unskilled and semiskilled workers for the proposed project will be from the nearby villages.
- The development of the basic amenities viz. roads, transportation, electricity, drinking water, proper sanitation, educational institutions, medical facilities, entertainment, etc. will be developed as far as possible.
- Overall the proposed project will change living standards of the people and improve the socio-economic conditions of the area.

8.3 EMPLOYMENT POTENTIAL

Future production planning does not indicate some change from present, in the employment. The number of unskilled labour may increase depending on the quantum of overburden removal and mineral excavation. The lessee has employed miners for raising ores & 59 Workers for removal of overburden, quarry cleaning & road repairing. The details of employment are given in Chapter-2.

The employment of local people in primary and secondary sectors of project will upgrade the prosperity of the region. These will in-turn improves the socio-economic conditions of the area. The total manpower required for the proposed mining project under various categories is 59 persons and persons will be mainly sourced from local as well as other community in and around mining project and few technical persons will be employed during operational phase from local and also from outside area. In addition to the above, contractual labour and indirect employment opportunities will also be getting benefited after installation of mining project.

8.4 POLICY AND ACTION PLAN ON SOCIAL RESPONSIBILITY

A detailed Community Social Responsibility plan has been prepared and the details of the report are given below.

8.4.1 CSR Project Details

Soapstone mine has proposed to provide financial assistance of Rs. 1.00 lakhs every year for the development of social infrastructure of the area.

Following measure will be taken to improve the Social infrastructure of the study area:

- Health Camps. (Rs. 25,000).
- Drinking Water Facilities. (Rs. 15,000).
- Maintenance of foot track (Rs. 25,000).
- Donation for Temple Construction. (Rs. 15,000).
- Donation for cultural activities in the surrounding areas (Rs. 20,000).

8.4.2 CER Project Details

In addition to the CSR, the provision of Rs.1.00 lakh every year (1% of the total project cost) has been proposed for the Corporate Environmental Responsibility (CER).

Following measure will be taken to improve the Social infrastructure of the study area:

- Sanitation facilities. (Rs. 25,000).
- Skill Development for villagers. (Rs. 20,000).
- Awareness to local farmers to increase yield of crop and fodder (Rs. 15,000).
- Plantation in the community areas/schools and on van panchayat land of nearby villages. (Rs. 40,000).

CHAPTER 9: ENVIRONMENT MANAGEMENT PLAN

9.1 INTRODUCTION

An EMP is prepared including all the administrative aspects of ensuring that mitigative measures are effectively monitored, after approval of the EIA. The final EIA/EMP of the proposed project will be submitted to SEAC, Uttarakhand, for obtaining environmental clearance for the project, in accordance with Environment Impact Assessment (EIA) Notification No. 1533 dt.14.09.2006. The approved Environment Management Plan will be implemented throughout the life of the project and half-yearly monitoring report showing the compliance status of conditions stipulated in Environmental Clearance letter will be submitted to MoEF&CC in every six months. An Environmental monitoring programme has been prepared for the proposed project for periodical assessment of effectiveness of implementation of Environment Management Planned to take corrective measures in case of any degradation in the surrounding environment.

To mitigate the adverse impact which will be caused due to the mining operation and overall scientific development of local habitat, environmental management plan (EMP) has been formulated and integrated with the mine planning. The details of the anticipated impacts and mitigative measures have been discussed in Chapter 4 of this report, based on the results of present environmental conditions and environmental impact assessment. The EMP has therefore been made considering implementation and monitoring of environmental protection measures during and after mining operations.

The aims of Environment Management Plan are:

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

9.2 IMPLEMENTATION OF EMP

As the major environment attributes will continue to be around the project area alone, implementation of the proposed control measures and monitoring thereof will be undertaken on a regional basis. The project proponent will ensure the implementation of the measures within the mine area and carryout efficient monitoring.

In order to implement the measures suggested for mitigating the adverse impacts on the environment, it is suggested to monitor the environmental parameters regularly.

9.3 ENVIRONMENTAL MONITORING

For assessing the prevailing quality of air, water, noise, soil etc., regular monitoring of parameters are necessary. The data assessed will be helpful in predicting the impact and planning suitable measures to improve/protect the environment. In the study area, the lessee will carry out monitoring studies for ambient air quality, fugitive dust, water quality, noise levels and soil quality as per the standard procedures and schedules. The monitoring system will includes:

- Monitoring stations in the buffer zone remain the same as selected in this study for Air, water, Soil, Noise etc.,
- Implementation of the planned mitigating measures.
- Monitoring the programme of implementation.

The Environmental parameters will be monitored & samples will be analyzed as per the stipulations of Indian Bureau of Mines & Uttarakhand Pollution Control Board and as per MoEF&CC Guidelines. The above monitoring proposals shall be adhered to and the results shall be intimated to the appropriate authorities for their perusal and records.

9.4 ORGANIZATIONAL SETUP FOR ENVIRONMENT MONITORING

Major attributes of environment are not confined to the mining site alone. Implementation of proposed control measures and monitoring program has an implication on the surrounding area as well as for the region. Therefore, mine management should strengthen the existing control measures as elaborated earlier in this report and monitor the efficacy of the control measures implemented within the mining area relating to the following specific areas for eco- friendly mining:

- a) Collection of air and water samples at strategic locations with frequency suggested and by analyzing thereof. If the parameters exceed the permissible tolerance limits, corrective regulation measure will be taken.
- b) Collection of soil samples at strategic locations once in every year and analysis thereof with regard to deleterious constituents, if any.
- c) Measurement of water level fluctuations in the nearby surface resources and bore wells.
- d) Measurement of noise levels at mine site, stationary and mobile sources, and adjacent villages will be done in every quarter of the year.
- e) Monitoring Ground Vibrations: Ground vibrations studies or monitoring is not required as there is no proposal of drilling/blasting for scooping operations.

9.4.1 Environment Management Cell

No cell is proposed to form; the plan will be implemented through outsourcing suitable and accredited consultants and experts.

Environmental Monitoring will be directly coordinated by the Supervisor/Owner.

Competent outsourced certified organization/lab personnel will conduct the monitoring operations. A full-fledged laboratory is not essential; part of the work will be given to competent consultants to undertake these jobs.

Regular semi-skilled manpower will be required for supervision, assistance in reclamation works followed by trained unskilled laborers to carry out other necessary operations.

9.4.1.1 Functions of the Cell

- Implementation of the mitigation measures.
- Maintain Records of the operation.
- Monitoring the programme of implementation.
- To estimate the efficiency of measures taken.
- To bring out any other unforeseen effect on environment not covered under the report.
- Inspection and regular maintenance of mining equipments and transport vehicles.

9.5 AIR QUALITY MANAGEMENT

Talc is a hydrous magnesium silicate. In trade, talc often includes: (i) the mineral talc in the form of flakes and fibres; (ii) steatite, the massive compact cryptocrystalline variety of high-grade talc; and (iii) soapstone, the massive talcose rock containing variable talc (usually 50%), soft and soapy to feel. Commercial talc may contain other minerals like quartz, calcite, dolomite, magnesite, serpentine, chlorite, tremolite and anthophyllite as impurities. The properties that give talc a wide variety of uses and markets are its extreme softness and smoothness, good luster and sheen, high slip and lubricating property, low moisture content, ability to absorb oil and grease, chemical inertness, high fusion point, low electrical and heat conductivity, high dielectric strength, good retention for filler purposes, whiteness, good hiding power as pigment and high specific heat.

9.5.1 Control of Fugitive Emissions

- Use of Personal Protection Equipments (PPE) like dust masks, ear plugs etc. by the mine workers.
- Regular water sprinkling on haul roads & loading points will be carried out.
- Development of green belt/plantation around the lease boundary, roads, dumps etc.
- Ambient Air Quality Monitoring will be conducted on regularly basis to assess the quality of ambient air.

9.5.2 Prevention and control of Gaseous Pollution

Open cast manual method will be adopted in this case and there is no provision for blasting. The main source of gaseous emissions would be transportation.

Only 100 tonnes of soapstone will be produced per day and the transportation will be done with covered materials to prevent any spillage and also prevent fugitive dust emission due to wind. Any gaseous emission transportation will be negligible and not impact the ambient quality. Exhaust emission will be monitored of the trucks and to be kept below the permissible limit.

Proper maintenance of machines improves combustion process & makes reduction in the pollution. Good maintenance and monitoring of fuel and oil will not allow significant addition in the gaseous emission.

9.6 NOISE POLLUTION CONTROL

9.6.1 Noise Abatement and Control

- Proper maintenance, oiling and greasing of machines at regular intervals will be done to reduce the generation of noise.
- Adequate silencers will be provided in all the diesel engines.
- Plantation along the sides of approach roads and mine area will be done to minimize the propagation of noise.
- Personal Protective Equipment's (PPE) like earmuffs/earplugs will be provided to all operators and employees working near mining machineries or at higher noise zone.
- Periodical noise level monitoring will be done.

9.7 WATER QUALITY MANAGEMENT

Water for drinking and operations is required to be 10 KLD. The water shall be extracted from the nearby surface water resources or natural springs.

Measures for Minimizing Adverse Impacts

Seasonal drainage exists near to the project site. The mining is being carried out in hilly region. The problem of ground water pumping will not arise. Rain water will not accumulate in the mining pit & it will be channelized along the slopes. The mining work will usually be confined within gullet driven from north-south & a ledge of about one meter height will be kept on the outer edge so that in discrete water flow will be avoided. The interburden and top soil will be used in backfilling. Further no significant impact on water quality is anticipated as material exposed will be low grade magnesite & is very feebly react with water that too when water becomes acidic. Even of reaction takes place it gives arise to increased temporary hardness of water. Water is being supplied from the spring. No hydrological studies have been carried out in the area.

Surface Water

There is a possibility of mixing of freshly disturbed material with the rain water. To take care of such happenings, retaining walls have been provided along the backfilled pits and along the soil and interburden dumps. Monitoring of water will be carried out periodically. Water analysis will be carried out seasonally.

Ground Water Pollution

The domestic sewage from the canteen and toilets will be routed to septic tanks. Regular monitoring of water levels and quality in the existing open wells and bore wells in the vicinity will be carried out. If found necessary, additional observation wells will be sunk for monitoring

the water levels and quality around the mine representing both upstream and downstream conditions.

Impact on land use & reclamation of mined out areas

Opencast mining activities may alter the landscape of the lease area and also cause some disturbance to the surface features of the surrounding areas. Mining will be done after leaving 7.5 m safety barrier. Plantation will be developed in consultation with district administration/ local authority, wherever feasible. The Existing land use pattern is agricultural land.

The impact on land form or physiography will be land use on the hilly terrain will undergo radical changes due to the open cast mining. During the next five years mining, 1.829 ha land will be degraded due to mining & allied activities.

All the quantities of top soil & interburden material to be generated by the end of plan/conceptual period shall be used for the purpose of reclamation over the mined unit land. Therefore no proposal for separate stacking of top soil and interburden dump has been proposed.

9.8 WASTE MANAGEMENT

Solid waste generation and management Disposal of Waste:

The top soil will be removed with the help of JCB machine, dozer, shovels, pickaxe, spade & crowbar and stacked separately. The soil intermixed with fragments and interburden rejects are low grade magnesite. Part of these rejects will be utilized in construction and maintenance of retaining walls, parapet walls, check dams and other construction works. About 1265 cum of rejects will be used for this task, and in dump yard remaining rejects about 121335.82 cum will be backfilled.

Mitigation measures

Access roads from public roads will be aligned in such a way that it would cause least damage.

The banks cut for ramp will also be restored at the closing of mine during monsoon. Vegetation development is proposed along the lease area as restoration work.

Plantation is proposed along the road sides, civic amenities in consultation with local/ govt. authorities. While selecting the plant species, preference will be given for planting native species of the area.

Storage and preservation of top soil:

The soil will be removed with the help of JCB machine, dozer, shovels, pickaxe, spade & crowbar and loaded manually to stack on the dump yard. Stacking will commence at RL 1215m to RL 1221m in first & second year, RL 1140m to RL 1143m in third year, RL 1119m to RL 1122m in fourth & RL1125m to RL RL 1128m in fifth year. The spread of stacks will be undertaken through mechanically and manually both & average dump height kept 1.5m. In first year 146 m² areas was earmarked for stacking of soil with 1.5m height. In second area it is 147

m² areas. Similarly in third, fourth & in fifth year 146 m², 145 m² and 146 m² area have been respectively earmarked for stacking of soil with 1.5m average height.

Proposal for reclamation of land affected by mining activities:

The mining will commence from the higher levels and will advance towards lower levels. Intermittent backfilling will commence from the higher levels and subsequently advance towards the lower elevation so that terraced agriculture fields would undertake in such a manner that original land use will be restored i.e. before the onset of monsoon will be handed over to cultivators for cultivation. The final backfilling will be started once the ultimate benches are formed and pit reaches the optimum economic depth. All recovery of the mineral will be of the saleable grade.

9.9 GREENBELT AND PLANTATION

Plantation will be raised at a spacing of 7.5m along the boundaries of the mining lease by planting the native species around ML area, backfilled and reclaimed area, around water body, roads etc. in consultation with the local DFO/Agriculture department. The year wise plantation of trees has been shown in **Table 9.1**.

Year	Plantation in between lease boundary and UPL		
	Area (ha.)	No. of saplings	
2020-21	0.043	43	
2021-22	0.065	65	
2022-23	0.177	177	
2023-24	0.135	135	
2024-25	0.039	39	
Total	0.459	459	

Table 9.1: Year wise afforestation scheduled

*Besides these 5000 nos. of more samplings will be done all along the periphery of the mine lease area and in the nearby van panchayat land in Karuli, Hirmoli and Simtola villages. Total no. of trees shall be planted in the first two years and in the next three years its maintenance will take place. Local native species like Peach (Khubani), Pears (Nashpati), Apricot (Aaru), Plumk, Mehal, Kaphal, Chilmora etc. shall be planted.

The following characteristics should be taken into consideration while selecting plant species for green belt development and tree plantation.

- They should be fast growing and tall trees.
- They should be perennial and evergreen.
- They should have thick canopy cover.
- Plantation should be done in appropriate alternate rows around the proposed site to prevent lateral pollution dispersion.

• The trees should maintain regional ecological balance and conform to soil and hydrological conditions. Indigenous species should be preferred.

9.10 BIOLOGICAL MANAGEMENT MEASURES

There is a requirement to establish a stable ecosystem with both ecological and economic returns. Minimization of soil erosion and dust pollution enhances the beauty of the core and the buffer zone. To achieve this, it is planned to increase plantation activities. The basic objectives of plantation are as follows:-

- Improvement of Soil quality.
- Quick vegetative cover to check soil erosion.
- Improvement in mining site stability.
- Conservation of biological diversity.
- As dust receptor which likely to produce during mining.

9.10.1 Greenbelt Development Plan

Green belt is plantation of trees for reducing the pollution as they absorb both gaseous and particulate pollutant, thus removing them from atmosphere. Green plants form a surface capable of absorbing air pollutants and forming sinks for pollutants. It improves the aesthetic value of local environment. Under present project, green belts have been planned with emphasis on creating biodiversity; enhance natural surroundings and mitigating pollution. The greenbelt development plan aims to overall improvement in the environmental conditions of the region. The plan with a five-fold objective addresses issues such as providing sink for air pollutants likely to emitted from the project; enhancing the forest cover for increasing the biodiversity of the region; providing aesthetic value to the project area enhancing the ecological equilibrium of the area; and to a large proportion in combating soil erosion.

- Afforestation on degraded forest area, forest protection / conservation will be carried out every year by the mine owner.
- This activity will promote the emergence of the primary succession species; hence it will be a silvicultural operation, extremely important for maintaining ecology and environmental health of the area.
- This helps in regeneration & establishment of pioneer plant species saving expose land & land cutting.

These plantations will be carried out around mining zone and both sides of the mine road. About twice the area recommended for mining will be used for afforestation/greenbelt as per the "Forest (Conservation) Amendment Rule, 2004".

The scheme of plantation around the project site is given as follows:

Afforestation will be put under a protective regulatory framework to ensure that it is not degraded or disturbed. No ecologically disruptive activity will be allowed in this zone.

The suggestive measures under EMP are given in **Table 9.2**.

Impact Predicted	Suggestive measure	
Disturbance of free movement / living of wild fauna	 Awareness camps will be conducted for labours to make them aware about sensitivity/importance of forest life. 	
	 No tract or new road for movement of labours or vehicles be laid in reserve forest area, this will prevent forest fragmentation, encroachment and human – animal encounter. 	
	• Care will be taken that noise produced during vehicles movement for carrying ore materials are within the permissible noise level. Higher noise level in the forest area will lead to restless and failure in detection of calls of mates and young ones.	
	 Care will be taken that no hunting of animals carried out by labours. 	
	 If wild animals are noticed crossing the core zone, it will not be disturbed at all. 	
	 Labours will not be allowed to discards food, plastic etc., which can attract animals near the core site. 	
	• Only low polluting vehicle will be allowed for carrying ore materials. All vehicles allowed in the project site area will have to provide pollution under control certificate at the end of three months.	
	• No honk will be allowed in the forest area, noise level will be within permissible limit (silent zone-50dB during day time) as per noise pollution (regulation and control), rules, 2000, CPCB norms.	
Harvesting of forest flora	 No tree cutting, chopping, lumbering, uprooting of shrubs and herbs should be allowed. 	
	 No pilling of ore material should in the reserve forest area. 	
	 Collections of economically important plants will be fully restricted. 	

9.11 OCCUPATIONAL HAZARDS AND SAFETY

Occupational safety and health is very closely related to productivity and good employeremployee relationship. The factors of occupational health in proposed Soapstone Mining Project are mainly dust and land degradation. Safety of employees during operation and maintenance etc. shall be as per Mines rules and regulations. To avoid any adverse effect on the health of workers due to various pollutants, sufficient measures relating to safety and health will also be practiced:

- Provision of rest shelters for mine workers with amenities like drinking water etc.
- All safety measures like use of safety appliances, such as dust masks, helmets, shoes, safety awareness programs, awards, posters, slogans related to safety etc.
- Training of employees for use of safety appliances and first aid in vocational training center.
- Regular maintenance and testing of all equipment as per manufacturers' guidelines.
- Periodical Medical Examination (PME) of all workers by a medical Officer
- First Aid facility is provided at the mine site.
- Close surveillance of the factors in working environment and work practices which may affect environment and worker's health.
- Working of mine as per approved mining plan and environmental plans.

9.12 ENVIRONMENTAL POLICY

The Owner of proposed Soapstone Mine believes that responsible environmental stewardship comprises diligent application of well-established natural resource management, controls and practices for the protection, reclamation of the mined out land, preservation of biodiversity and proper disposal of waste following the best environmental practices during the process of mining of soapstone.

Environmental policy prescribed for standard operating process to bring into focus any violation/deviation of the environment and forest norms/conditions that the company operations will implement operational and risk management practices that provide for maximum protection of people and the environment. To this end, the owner resolves that company will follow the below mentioned practices:

Operate in accordance with prescribed industry standards while complying with all applicable environmental, health and safety laws and regulations.

- Establish and maintain a well-defined environmental, health and safety management system to guide its operations.
- Ensure that all employees, officers and directors understand and adhere to its environmental, health and safety management program.
- Provide operations with the necessary resources, expertise and training to effectively carry out its EHS management programs.
- Engage employees at all levels in programs directed towards minimizing adverse effects on the environment resulting from mining activity.
- Work proactively with governments and the public in the development of cost effective and realistic regulations that promote enhanced environmental, health and safety protection.
- Promote environmental awareness among its employees, their families and the communities in which it operates.

- Require those who provide services and products to practice good environmental stewardship.
- Mitigate its environmental impacts through efficient use of resources, and the reduction of input materials and waste.
- Maintain a high degree of emergency preparedness.

9.13 BUDGET ALLOCATION FOR EMP IMPLEMENTATION

It is necessary to include the environmental cost as a part of the budgetary cost component. The project authorities propose to undertake the following environmental works to achieve the environmental quality as desired. The budget for EMP implementation has been shown in **Table 9.3**.

S. No.	Measures	Cost (In Rs.)
1.	Water Sprinkling for dust suppression	50,000
2.	Environmental Monitoring :	1,00,000
	 (i) Ambient Air Quality Monitoring (ii) Ambient Noise Monitoring (iii) Water Quality Sampling & Analysis (iv) Soil Quality Sampling & Analysis 	
3.	Plantation of 5459 trees along with their maintenance for green belt	5,45,900
4.	Cost for Retaining wall/Toe wall	1,00,000
	Total	7,95,900

Table 9.3: Budget for Environmental Management Plan

9.14 CORPORATE ENVIRONMENTAL RESPONSIBILITY (CER)

The cost towards Corporate Environmental Responsibility (CER) has been shown in Table 9.4.

Table 9.4: Budget for Corporate Environmental Responsibility (CER) (per year)

S. No.	Measures	Cost (In Rs.) (per year)
1.	Sanitation facilities	25,000
2.	Skill Development for villagers	20,000
3.	Awareness to local farmers to increase yield of crop and fodder	15,000
4.	Plantation in the community areas/schools and on van panchayat land of nearby villages	40,000
	Total	1,00,000

9.15 CONCLUSION

As discussed, it is safe to say that the project is not likely to cause any significant impact on the ecology of the area, as adequate preventive measures will be adopted to contain the various pollutants within permissible limits. Green belt development around the area will also be taken up as an effective pollution mitigative technique, as well as to control the pollutants released from the premises of the proposed Soapstone Mine.

CHAPTER 10: SUMMARY AND CONCLUSIONS

10.0 INTRODUCTION

10.1 PURPOSE OF THE REPORT

M/s Star mines and minerals proposes the Soapstone Mine extending over an area of 7.841 ha [24000 TPA (maximum) of Soapstone] in Village-Karuli, Tehsil & District-Bageshwar, Uttarakhand. The proposal for TOR was considered in its meeting dated 03rd June 2021 and since the project is greater than 5 ha and it comes under category B1 therefore comprehensive EIA report shall be prepared. The draft Environmental Impact Assessment report has been prepared to comply with the standard Terms of Reference (ToR), under EIA notification of the MoEF&CC dated 14th September, 2006 and amended thereof, for seeking environmental clearance for mining of soapstone in the applied mining lease area.

10.2 IDENTIFICATION OF PROJECT & PROJECT PROPONENT 10.2.1 Identification of Project

The Proposed Soapstone mine is executed over an area of 7.841 ha in Village-Karuli, Tehsil, District-Bageshwar, Uttarakhand. The maximum production rate is of 24,000 TPA of soapstone production.

The cost of the project is Rs.20 lakhs.

10.2.2 Project Proponent

M/s Star mines and minerals is a private company. The proposed Soapstone Mine extends over an area of 7.841 Ha (24,000 TPA (maximum) of Soapstone) in Village- Karuli, Tehsil & District - Bageshwar, Uttarakhand. The LOI of proposed Soapstone Mine was granted in favour of M/s Star mines and minerals for period of 50 years by the Govt. of Uttarakhand. The proposed rate of production is 24,000 TPA (maximum) of soapstone. The estimated project cost is Rs 20 lakhs. The expected life of mine is 50 years.

Address of the applicant

M/s Janki Rathor (Partner) House 346/3, kalawati Colony, Haldani Disst- Nainital, Uttarakhand - 263139

10.3 BRIEF DESCRIPTION OF PROJECT

10.3.1 Nature of the Project

The proposed Soapstone Mine, project will adopt opencast manual cum semi mechanized method. The mine is executed over a lease area of about 7.841 ha, for the production of 24,000 TPA of soapstone.

Therefore as per the EIA Notification dated 15th January, 2016 and 1st July, 2016, the project comes under "B1" Category since the area is greater than 5 ha.

10.3.2 Size of the Project

The proposed Soapstone mining project extends over an area of 7.841 ha with the target maximum production capacity of mine is about 24,000 TPA (maximum) of Soapstone.

10.3.3 Anticipated Life of Project and Cost of the Project

The projected life of the mine is 50 years. The cost of the project is about Rs. 40 lakhs.

10.3.4 Location of the Project

The proposed Soapstone Mine lease comes under Village-Kabhata Tehsil- Kanda, District-Bageshwar, Uttarakhand. Geo-graphically the ML area extends from North Latitude 29° 49' 07.95" N to 29° 49' 23.26"N and East Longitude 79° 55' 25.16" E to 79° 55' 59.99" E with an elevation of about 1187 m reduced level (RL). The area falls in Survey of India topo sheet No. 53 O/13.

10.4 PROJECT DESCRIPTION

10.4.1 Salient Features of Mine Lease

The salient features of mine lease are given in **Table 10.1** below:

Sr. No.	Parameter	Description
1	Name of the Mine	Proposed Karuli Soapstone Mine (Area: 7.841 ha.) at Village Karuli, Tehsil & District:
2	Mining Capacity	24,000 (maximum) TPA of Soapstone
3	Longitude Latitude	29°52'2.98" N to 29°52'15.41"N 79°49'39.48"E to 79°49'45.82"E
4	Method of mining	Opencast semi mechanized method
5	Total ML area	7.841
6	Extent of mechanization	Excavator shall be deployed for extraction of top soil, interburden and mineral. No drilling and blasting will be done.
7	Bench height & width	3m
8	Bench Slope	60° to 65°
9	Slope of track	1:8 to 1:20
10	Transportation of Material	The mineral will be supplied in the local market by trucks/tippers.
11	Manpower	59 persons
12	Water Requirement	10 KLD
13	Source of Water	Village Panchayat
14	Greenbelt development / Plantation (Mine life end)	0.459 ha
15.	No. of saplings proposed in the next 5 years	5459

Table 10.1: Salient Features of mine lease area

10.4.2 Mine Development and Production

The mining will be done semi-mechanized way in open cast method in quite a systematic manner by forming 6m high benches. However, there may be minor variation in the width and-height which the lessee will keep on mending. The top soil and interburden to be scrapped with the help of JCB machine, dozer, shovels, pickaxe, spade & crowbar and will be stacked separately in dump yard located near the working pit. The developmental working will be done by construction of road/track to different working benches, removal of top soil and interburden. The soil will be filled into the bags, loaded on mules and unload into stockyard.

Year wise Production details are given in **Table 10.2** below.

Years	Saleable soapstone (Tonnes)
1st	20000
2nd	24000
3rd	24000
4th	23000
5th	23000
Total	114000

Table 10.2: Year wise Production of Soapstone Mine

The quantity of soil, interburden from pit to be generated during next five years is given in **Table 10.3** below:

Year	Top Soil (cum)	Interburden (cum)	Mineral Rejects (cum)
I	3789.2	21618.94	25408.14
II	4379.08	25913.76	30292.84
III	5291.74	26294.31	31586.05
IV	3394.52	24454.03	27848.55
V	3020.88	24319.78	27340.66
Total	19875.42	122600.82	142476.24

Table 10.3: Quantity of Top Soil and interburden of Soapstone Mine

10.4.3 Method of Mining

The mining shall be carried out in two pits and will be done semi-mechanized way in open cast method in quite a systematic manner by forming upto 9m high benches with1.5m to 3.0m subbenches. All the top soil, overburden & interburden shall be removed by the means of excavators. The slope of the faces will be kept 60°-70° and the ultimate slope of the pit will remain 45°. Mining shall be carried out from higher level & subsequently advance to upper levels.

10.5 IMPACT ON LAND USE, RECLAMATION OF MINED OUT AREAS AND AFFORESTATION PROGRAMME

Impact on land use & reclamation of mined out areas

Opencast mining activities may alter the landscape of the lease area and also cause some disturbance to the surface features of the surrounding areas. Mining will be done after leaving 7.5 m safety barrier.

Plantation will be developed in consultation with district administration/ local authority, wherever feasible.

The Existing land use pattern is agricultural land. The impact on land form or physiography will be land use on the hilly terrain will undergo radical changes due to the open cast mining. During the next five years mining, 2.240 ha land will be degraded due to mining & allied activities.

Proposal for reclamation of land affected by mining activities:

The mining will commence from the higher levels and will advance towards lower levels. Intermittent backfilling will commence from the higher levels and subsequently advance towards the lower elevation so that terraced agriculture fields would undertake in such a manner that original land use will be restored i.e. before the onset of monsoon will be handed over to cultivators for cultivation. The final backfilling will be started once the ultimate benches are formed and pit reaches the optimum economic depth. All recovery of the mineral will be of the saleable grade.

Plantation will be raised in 7.5m barrier zone along the boundaries of the mining lease area by planting the native species around ML area, backfilled and reclaimed area, around water body, roads etc. in consultation with the local DFO/Agriculture department. The details of the year wise plantation have been shown in **Table 10.4**.

Year	Area	No. of Plants as per mine plan
I	0.043	43
II	0.065	65
III	0.177	177
IV	0.135	135
V	0.039	39
Total	0.459	459*

Table 10.4: Year wise Afforestation scheduled

*Besides these 5000 nos. of more samplings will be done all along the periphery of the mine lease area and in the nearby van panchayat land in Karuli, Hirmoli and Simtola villages. Total no. of trees shall be planted in the first two years and in the next three years its maintenance will take place. Local native species like Peach (Khubani), Pears (Nashpati), Apricot (Aaru), Plumk, Mehal, Kaphal, Chilmora etc. shall be planted.

10.6 LAND USE PATTERN

Presently (pre-mining), the land covered under the mine lease area is non-forest agricultural land.

10.7 BASELINE ENVIRONMENTAL STATUS

10.7.1 Soil Quality

Five soil samples were collected in and around the mine lease area to assess the present soil quality of the region. In the study area, variations in the pH of the soil were found to be slightly basic (7.32 to 7.65). Electrical conductivity (EC) is a measure of the soluble salts and ionic activity in the soil. In the collected soil samples the conductivity ranged from $250.65 - 290.17\mu$ mhos/cm.

Based on the results, it is evident that the soils are not contaminated by any polluting sources.

10.7.2 Meteorology

Meteorological data at the site was monitored during December 2020 to February 2021 representing winter season.

10.7.3 Ambient Air Quality

Ambient Air Quality Monitoring (AAQM) has been carried out at five locations during premonsoon season from dec 2020 to feb 2021 The minimum and maximum level of PM10 recorded within the study area was in the range of 34.5 μ g/m³ to 68.5 μ g/m³ μ g/m³ with the 98th percentile ranging between 52.5 μ g/m³ to 68.4 μ g/m³. The minimum and maximum level of PM2.5 recorded within the study area was in the range of 12.4 μ g/m³ to 30.7 μ g/m³ with the 98th percentile ranging between 23.2 μ g/m³ to 30.5 μ g/m³. The minimum and maximum concentration of SO2 recorded within the study area was 5.0 to 8.9 μ g/m³ with the 98th percentile ranging between 5.7 μ g/m³ to 8.7 μ g/m³. The minimum and maximum level of NO2 recorded within the study area was in the range of was 7.3 μ g/m³ to 16.3 μ g/m³ with the 98th percentile ranging between 13.2 μ g/m³ to 15.7 μ g/m³. The results thus obtained indicate that the concentrations of PM10, PM2.5, SO2 and NO2 in the Ambient Air are well within the National Ambient Air Quality (NAAQ) standards for Industrial, Residential, Rural and other areas.

10.7.4 Water Quality

To assess the physical and chemical properties of water in the region, water samples from 8 locations were collected from various water sources around the mine lease area.

The pH was varying for ground water from 7.32 to 7.86 and the surface water are 7.26 to 7.4. The total dissolved solids in ground water are varying from 198.6 mg/l to 413.34 mg/l whereas in surface water varying from 175.36 mg/l to 186.98 mg/l. The chloride level in the ground water samples collected in the study area were ranging from 48 mg/l to a maximum of 12.6 mg/l, in surface water samples 16.3 mg/l to 17.2 mg/l. The hardness is varying from 182.44 mg/l to 288.2 mg/l, in surface water samples 185.18 mg/l to 188.11 mg/l.

The results indicate groundwater is generally in conformity with the drinking water standards (IS: 10500) and surface water is in conformity with IS-2296 standards.

10.7.5 Noise Levels

The values of noise observed in some of the areas are primarily owing to vehicular traffic and other anthropogenic activities. Assessment of average logarithm night time Leq (Ln) varies from 38.2 to 65.2 db and the average logarithm daytime Leq (Ld) varies from 48.7 to 70.5 dB in the study area.

Ambient noise levels were measured at Five locations around the proposed mine site. Assessment of average logarithm night time Leq (Ln) varies (A) within the study area.

10.7.6 Ecological Environment

Based on the field studies and review of published literature, it is observed that there are two Schedule-I species present in the study area of the mine lease area i.e. Indian Leopard and Asiatic Black Bear. There are no wildlife sanctuaries and National Parks within the study area of 10-km radius. However, the nearest RF from the mine lease is Karuli Reserve Forest at a distance of 500m.

10.7.7 Social Environment

According to the 2011 census of India, Bageshwar has a population of 2,59,898. The total SC population in Bageshwar district is 72,061 which is 27.72% of the total population, while ST population is 1982, which is 0.76% of the total population. The literate population in Bageshwar district is 1,79,483, out of which male & female are 97,546 and 81,937 respectively. The male literates represent 54.35% while female represent 45.65% of the total population.

10.8 ANTICIPATED ENVIRONMENTAL IMPACTS

10.8.1 Impact on Air Quality

Soapstone mine where PM_{10} and $PM_{2.5}$ will be the main pollutants generated in mining activities. The emissions of Sulphur dioxide (SO₂), Nitrogen Oxide (NO₂) contributed by diesel operated equipment and vehicles movement were considered marginal as branded make and vehicles with PUC certificate will be operated only. Fugitive dust and particulates are major pollutants occurred in the mining activities. Fugitive emissions will be settled by 70- 80% by use of multiple water sprinklers. Prediction of impacts on air environment will be made with proposed production and net increase in PM_{10} and $PM_{2.5}$ emissions at the proposed site and at the 10 km radius of study area due to mining activities.

Air pollution sources in the operating mine was classified into two categories

- i. Loading and unloading of mineral and OB, IB
- ii. Transportation on the haul road

10.8.2 Impact on Water Resources

Surface Water Resources

The topography of the area will not be largely changed in view of the proposed concurrent reclamation. During the mining activity period, there is a possibility of mixing of freshly disturbed material with the rain water. To take care of such happenings, retaining walls have been provided along the backfilled pits and along the soil and interburden dumps.

Groundwater Resources

The water table in hills is usually very deep and does not have any relevance with mining activities. However, concurrent restoration to original topography will not be disturbing the percolating water.

10.8.3 Impact on Water Quality

The impact on water quality will be confined to increased suspended solids during rain. The dumps will be secured with toe walls and rainy water will not carry significant suspended material.

10.8.4 Impact on Noise Levels and Ground Vibrations

With the mining operations, due to the deployment of machinery, operation for mine development, excavation and transportation of soapstone and men, it is imperative that noise levels would increase. Assessment of average logarithm night time Leq (Ln) varies from 35.4 to 46.2 dB (A) and the average logarithm daytime Leq (Ld) varies from 41.7 to 51.3 dB (A) within the study area. It is also observed that these incremental noise levels will not significantly affect the existing ambient noise levels.

10.8.5 Impact on Soil

The environmental impacts of the mining activities on topsoil are based on the quantity of removal of topsoil and its dumping. In the present project as it is proposed to temporarily store the topsoil and use it for plantation schemes, no impact of dozing of topsoil is envisaged.

The soil erosion from overburden and interburden dumps is not envisaged in the present project, as sufficient measures as detailed in the EMP would be undertaken.

10.8.6 Impact on Flora and Fauna

There is no forest area in the core zone area of the lease. As the mining activity is restricted to core zone, no significant impact on the flora of the buffer zone due to the proposed mining of Soapstone is anticipated.

It is proposed to include *Alternanthera paronychioides, Cassia tora* and *Holoptelea integrifolia* in the plantation program as they serve as sinks for gaseous emissions. Extensive plantation comprising of pollutant resistant trees will be undertaken, which will serve not only as pollution sink but also as a noise barrier.

The incremental dust generations due to the mining operations, at the boundary of the mine lease are insignificant and it is also expected that with the adoption of mitigatory measures as suggested in EMP, the impact due to operation of the mine will be minimal on the terrestrial ecosystem and also on the adjacent forest area.

The impact on the fauna of the buffer zone due to the mining activity will be marginal. The proposed progressive plantation over a period of time will reduce the impact, if any, on the fauna.

10.8.7 Impact on Land Use Pattern

The proposed opencast mine will result in change the land use pattern of the ML area. The land degradation is expected during mining activities like excavation, overburden dumping, soil extraction etc. Land requirement for the project has been assessed considering functional needs.

10.8.8 Impact on Socio - Economic Aspects

The mine area does not cover any habitation. Hence the mining activity does not involve any displacement of human settlement. No public buildings, places, monuments etc exist within the lease area or in the vicinity. The mining operation will not disturb/ relocate any village or need resettlement. Thus no adverse impact is anticipated.

The impact of mining activity in the area is positive on the socio-economic environment of the region. The proposed Soapstone Mine will be providing employment to local population and it will be give preference to the local people whenever there is requirement of man power.

10.9 ENVIRONMENTAL MANAGEMENT PLAN

The summary of environmental mitigation measures are given in **Table-10.5**.

Impact Predicted	Suggestive measure
Disturbance of free movement / living of wild fauna	 Awareness camps will be conducted for labours to make them aware about sensitivity/importance of forest life.
	 No tract or new road for movement of labours or vehicles be laid in reserve forest area, this will prevent forest fragmentation, encroachment and human – animal encounter.
	• Care will be taken that noise produced during vehicles movement for carrying ore materials are within the permissible noise level. Higher noise level in the forest area will lead to restless and failure in detection of calls of mates and young ones.

 Table-10.5: Proposed Environmental Mitigation Measures

M/s Star Mines and minerals: Mining of Karuli shopstone and mine Draft EIA/EMP soapstone from Lease Area (7.841 ha.) at Village - Karuli, Tehsil & District Bageshwar, State Uttarakhand

	Care will be taken that no hunting of animals carried out by labours.
	 If wild animals are noticed crossing the core zone, it will not be disturbed at all.
	• Labours will not be allowed to discards food, plastic etc., which can attract animals near the core site.
	• Only low polluting vehicle will be allowed for carrying ore materials. All vehicles allowed in the project site area will have to provide pollution under control certificate at the end of three months.
	 No honk will be allowed in the forest area, noise level will be within permissible limit (silent zone- 50dB during day time) as per noise pollution (regulation and control), rules, 2000, CPCB norms.
Harvesting of forest flora	 No tree cutting, chopping, lumbering, uprooting of shrubs and herbs should be allowed.
	 No pilling of ore material should in the reserve forest area.
	 Collections of economically important plants will be fully restricted.

10.10 ANALYSIS OF ALTERNATIVES

The Soapstone has been identified based on the result of geological investigations and exploration carried out by the Geological Survey of India (GSI). The mining projects are site specific as such alternate sites were not considered.

The mine is operated by opencast cum semi-mechanized method of mining. No other alternative technologies can be used because of the hard nature of the ore. Proposed mine is using eco-friendly measures to minimize the impact of mining on the surrounding environment.

10.11 COST ESTIMATES

The details of the cost to for the Environmental Management plan for 5 years, the budget for Corporate Environmental Responsibility (CER) (per year) and year wise allocation of funds for the various activities proposed to be taken up under CSR programme has been given in **Table 10.6**, **Table 10.7** and **Table 10.8** respectively.

M/s Star Mines and minerals: Mining of Karuli shopstone and mine	Draft EIA/EMP
soapstone from Lease Area (7.841 ha.) at Village - Karuli, Tehsil & District	
Bageshwar, State Uttarakhand	

Table-10.6: Budget for Environmenta	I Management Plan
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S. No.	Measures	Cost (In Rs.)
1.	Water Sprinkling for dust suppression	50,000
2.	Environmental Monitoring :	1,00,000
	 (i) Ambient Air Quality Monitoring (ii) Ambient Noise Monitoring (iii) Water Quality Sampling & Analysis (iv) Soil Quality Sampling & Analysis 	
3.	Plantation of 5459 trees along with their maintenance for green belt	5,45,900
4.	Cost for Retaining wall/Toe wall	1,00,000
	Total	7,95,900

Table 10.7: Budget for Corporate Environmental Responsibility (CER) (per year)

S. No.	Measures	Cost (In Rs.) (per year)
1.	Sanitation facilities	50,000
2.	Skill Development for villagers	30,000
3.	Awareness to local farmers to increase yield of crop and fodder	40,000
4.	Plantation in the community areas/schools and van panchayat land of nearby villages	50,000
	Total	1,70,000

Table 10.8: Year wise allocation of funds for the various activities proposed to betaken up under CSR programme

S. No.	Activities	Allocation of Fund (Rs.)
1	Health Camps	25,000
2	Drinking Water Facilities	15,000
3	Maintenance of foot track	25,000
4	Donation for Temple Construction	15,000
5	Donation for cultural activities in the surrounding areas	20,000
Total		1,00,000

10.12 ADDITIONAL STUDIES

10.12.1 Risk Assessment and Disaster Management Plan

The complete mining operation will be carried out under the management control and direction of a qualified mine manager holding Mines Manager's Certificate of Competency. Moreover, mining staff will be sent to refresher courses from time to time to keep them updated.

10.12.2 Disaster Management Plan

Emergency preparedness is an important aspect in the planning of Disaster Management. Personnel would be trained suitably and prepared mentally and physically in emergency response through carefully planned, simulated procedures. Similarly, the key personnel and essential personnel shall be trained in the operations.

10.13 PUBLIC CONSULTATION

10.13.1 Public Hearing

In consonance with the EIA notification dated 14th September 2006, vide section 1 (a) related to Public Hearing, the draft EIA/EMP report shall be submitted to the Uttarakhand Environment Protection & Pollution Control Board (UEPPCB) for public hearing

10.14 PROJECT BENEFITS

The impact on the civic amenities will be substantial after the commencement of mining activities. Medical facilities will be provided in the form of first-aid facility at the mine. These medical facilities will also be available to local people in the surrounding in case of emergencies.

- Generation of employment and improved standard of living;
- Increased revenue to the State by way of royalty, taxes and duties; and
- Superior communication and transport facilities etc.
 The employment of local people in primary and secondary sectors of project will upgrade the prosperity of the region.

10.15 CONCLUSIONS

- The mining operations will meet the compliance requirements of MoEF&CC;
- Community impacts will be beneficial, as the project will generate significant economic benefits for the region;
- Adoption of Best Available Technology and Best Management Practices with more environmental friendly process; and
- With the effective implementation of the Environment Management Plan (EMP) during the mining activities, the proposed project can proceed without any significant negative impact on environment.

Chapter 11: DISCLOSURE OF CONSULTANT ENGAGED

Declaration by Experts contributing to the EIA: Mining of Soapstone from Lease Area (7.841 Ha.) at Village- Karuli, Tehsil & District - Bageshwar, Uttarakhand. I, Sanjeev Sharma hereby certify that I was a part of the EIA team in the following capacity that developed the above EIA.

EIA coordinator

Vijay Sharma

Signature and Date:

Jul

02-07-2021

Name:

Period of Involvement: December 2020 to Till date

Contact Information: vijaysharmav07@gmail.com

Functional area experts:

S. No.	Functional Areas	Name of the experts	Signature
1.	EIA Coordinator and FAE in AQ, NV and SHW	Sanjeev Sharma	Sances
2.	WP and RH	Anoop Kishore Misra	HOruna
3.	SC	ML Sharma	Whanne .
4.	SE	Ashok Suyal	Cozila (ymm
5.	EB	Kashmir Singh Pal	Beat
6.	HG	Mr. RK Mishra	Remisery
7.	GEO	B. M. Sinha	Baschill
8.	AP	Vijay Sharma	Viet
9.	LU	Yasir Ahmed	Magazin Alamoud.
10.	Noise and Team Member	Rishabh Sehgal	atschal

M/s Star Mines and minerals: Mining of Karuli shopstone and mine soapstone from Lease Area (7.841 ha.) at Village - Karuli, Tehsil & District Bageshwar, State Uttarakhand

Declaration of association in the EIA

Declaration by the Head of the accredited consultant organization/ authorized person

I, ML Sharma hereby, confirm that the above-mentioned experts prepared the EIA of Mining of Soapstone from Lease Area (7.841 Ha.) at Village- Karuli, Tehsil & District - Bageshwar, Uttarakhand for M/s Star Mines and minerals. I also confirm that the consultant organization shall be fully accountable for any mis-leading information mentioned in this statement.

Signature:

Name: ML Sharma

Designation: Director

Name of the EIA consultant organization: Enviro Infra Solutions Pvt. Ltd.

NABET Certificate No. & Issue Date: NABET/EIA/1922/RA 0157 dated November 13 2022

ANNEXURE I: COPY OF APPROVED TERMS OF REFERENCE (TOR)

कार्यालय राज्य स्तर पर्यावरण समाघात निर्धारण प्राधिकरण (SEIAA) व राज्य विशेषज्ञ अंकन समिति (SEAC), उत्तराखण्ड | 653, इन्दिरा नगर कालोनी, सीमाद्वार रोड, देहरादून–248006 |

पत्र संख्या- 223 / SEAC

दिनांक- / 5 जून, 2021

To,

30-30

M/s Star Mines and Minerals by Smt. Janki Rathor, Add- House no. 346/3, Kalawati Colony, Haldwani, Distt. Nainital.

Sub- Regarding Environmental Clearance for Extraction of Soapstone at Village: Karuli, Tehsil & District: Bageshwar. (Area- 7.841 Ha.).

Dear Sir/Madam,

Kindly take reference of your submitted vide proposal no SIA/UK/MIN/63385/2021 on dated 18th May, 2021 regarding above proposal. The SEAC in its meeting dated 3rd June, 2021 examined the proposal submitted by you. After through discussion and deliberation, it has been conveyed that SEAC desires Rapid EIA report of this proposal after due public consultation conducted by Uttarakhand Environment Protection and Pollution Control Board. The terms of reference (TOR) for the EIA report is being out lined below:-

1(a): STANDARD TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR NON-COAL MINING PROJECTS AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

- Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
- A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
- 3) All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee. The above reports should also match with the latest District Survey Report (DSR) notification no- 2827 dated 25th July, 2018. Data obtained from this DSR should be incorporated in the EIA Report for Impact Identification, Interpretation, Prediction, Carrying Capacity and Mitigation.
- 4) All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
- 5) Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
- 6) Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
- 7) It should be clearly stated whether the proponent Company has a well laid down Environment. Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.
- 8) Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.
- 9) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.

- 10) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
- 11) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
- 12) A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
- 13) Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
- 14) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
- 15) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- 16) A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
- 17) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
- 18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled- I fauna found in the study area, the necessary plan alongwith budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- 19) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.
- 20) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
- 21) One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season); December-February (winter season)]primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.
- 22) Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
- 23) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.

24) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.

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- 25) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
- 26) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
- 27) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
- 28) Details of any stream, seasonal or otherwise, passing through the lease area and modification/diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
- 29) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
- 30) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
- 31) Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.
- 32) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- 33) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
- 34) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
- 35) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
- 36) Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
- 37) Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
- 38) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
- 39) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- 40) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- 41) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- 42) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
- 43) Besides the above, the below mentioned general points are also to be followed:
 - a) Executive Summary of the EIA/EMP Report
 - b) All documents to be properly referenced with index and continuous page numbering.
 - c) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.

e) Where the documents provided are in a language other than English, an English translation should be provided.

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- f) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
- g) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF&CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
- As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
- j) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

<u>Note</u>: 1) The study area shall comprise of radial distance of 10 KM from the project site and the study period is three months. The impact on each of the above parameter as a result of mining shall be assessed through appropriate modeling and prediction methods considering base line data.

2) District Survey Report should be submitted as per the latest notification no- 2827 dated- 25-7-2018

Hence you are kindly requested to kindly submit EIA report for further necessary action.

(Rajiv Dhiman) Member Secretary, SEAC, Uttarakhand

Copy to:- Member Secretary, Gaura Devi Paryavaran Bhavan Environment Protection and Pollution Control Board, IT, Park Dehradun for necessary action.

> (Rajiv Dhiman) Member Secretary, SEAC, Uttarakhand

ANNEXURE II: COPY OF LETTER OF INTENT (LOI)

उत्तराखण्ड शासन औद्योगिक विकास (खनन) अनुभाग—1 संख्याः //30 /VII-A-1/2020/1(4)/20 देहरादून,दिनांकः 20 नवम्बर, 2020

कार्यालय ज्ञाप आशय पत्र

जनपद व तहसील बागेश्वर के ग्राम करूली में कुल 28.264 है० भूमि में उपखनिज सोपस्टोन का खनन पट्टा चाहने हेतु श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर, हाऊस नं० 346/3, कलावती कालोनी, हल्द्वानी एवं अन्य साझेदार मै० स्टार माइन्स एवं मिनरल्स, हाउस नं० 1516, सावित्री कालोनी, हल्द्वानी के आवेदन पत्र दिनांक 08.12.2015 एवं निदेशक, भूतत्व एवं खनिकर्म इकाई, उत्तराखण्ड के पत्र संख्या–746/मु०ख०/19/सोपस्टोन/भू०खनि०ई०/2015–16, दिनांक 31 जुलाई, 2020 द्वारा उपलब्ध कराये गये प्रस्ताव के क्रम में इस आशय पत्र (letter of Intent) के माध्यम से राज्य सरकार श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर, हाऊस नं० 346/3, कलावती कालोनी, हल्द्वानी एवं अन्य साझेदार मै० स्टार माइन्स एवं मिनरल्स, हाउस नं० 1516, सावित्री कालोनी हल्द्वानी के पक्ष में जनपद एवं तसहील बागेश्वर के ग्राम करूली के क्षेत्रान्तर्गत आवेदित कुल 28.264 है० भूमि के सापेक्ष कुल 19.879 है० भूमि में उत्तराखण्ड गौण खनिज नीति, 2015 (समय–समय पर यथासंशोधित) के प्रावधानानुसार उपखनिज सोपस्टोन का 50 वर्ष की अवधि हेतु खनन पटटा स्वीकृत करने की मंशा रखती है। आवेदक यदि उक्त खनन पटटा लेने हेतु सहमत हों तो निम्नलिखित शर्तों का अनुपालन पत्र प्राप्ति के छः माह में प्रस्तुत करें, जिससे खनन पटट की औपचारिक स्वीकृति जारी की जा सके:–

- 1. उत्तराखण्ड गौण खनिज नीति, 2015 (समय—समय पर यथासंशोधित) के नियमों/प्रतिबन्धों पर
 - लिखित सहमति पत्र।
- 2. उत्तराखण्ड गौण खनिज नीति, 2015 के प्रस्तर 3(दो)(5) के अनुसार आवेदक द्वारा खनन योजना संबंधित खान अधिकारी / उप निदेशक (खनन) के समक्ष ₹ 20,000 / – की धनराशि निर्धारित लेखाशीर्षक में ट्रेजरी चालान के माध्यम् से जमा कराने के उपरान्त चालान की प्रति के साथ प्रस्तुत की जायेगी।
- आवेदक द्वारा उत्तराखण्ड गौण खनिज नीति, 2015 के प्रस्तर–3(ग्यारह) में कार्यालय संख्या–1589/VII-1/2015/68–ख/2015, दिनांक 7 अक्टूबर 2015 के द्वारा किये गये संशोधन के अनुसार, बैक गारन्टी ₹ 1.00 लाख मैनुअल माईनिंग एवं ₹ 2.00 लाख मशीनीकृत माईनिंग हेतु निदेशक के पक्ष में प्रस्तुत करनी होगी ।
- उत्तराखण्ड गौण खनिज नीति, 2015 के प्रस्तर–7 के अनुसार आवेदक को खनन पट्टे में पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार की अधिसूचना का0आ0 2601 (अ) दिनांक 07 अक्टूबर 2014 के क्रम में जारी शासनादेश संख्या–1621/VII-1/212–ख /2014,
- दिनांक 17 दिसम्बर 2014 के अनुसार पर्यावरणीय अनुमति प्राप्त किया जाना आवश्यक होगा। 5. उत्तराखण्ड गौण खनिज नीति, 2015 के प्रस्तर–8 के अनुसार आवेदक को प्रतिभूति धनराशि
 - र 10,000 / निदेशक, भूतत्व एवं खनिकर्म इकाई के पक्ष में बन्धक करना होगा।
- 6. आवेदक को उत्तराखण्ड पर्यावरण संरक्षण एवं प्रदूषण नियंत्रण बोर्ड उत्तराखण्ड से CTE/CTO प्राप्त करना आवश्यक होगा।
- राजस्व विभाग द्वारा निजी भूमि धारकों की सूची खसरा विवरण सहित सॉफ्ट कापी एवं हार्ड कापी ए–4 साईज में निदेशालय एवं शासन को उपलब्ध करायी जायेगी।
- खनन पट्टा क्षेत्रान्तर्गत सार्वजनिक उपयोग की कुल 0.635 है० भूमि में खनन कार्य निषिद्ध रहेगा।
- प्रस्तावित क्षेत्र का सीमाबन्धन भूतत्व एवं खनिकर्म इकाई के अधिकारियों द्वारा राजस्व विभाग तथा प्रभागीय वनाधिकारी, बागेश्वर वन प्रभाग के प्रतिनिधि के द्वारा संयुक्त रूप से किया जायेगा। सीमाबन्धन के समय यदि क्षेत्र का कोई भाग आपत्तिजनक पाया जाता है तो उसे पृथक कर दिया जायेगा, जिसके फलस्वरूप क्षेत्र अथवा क्षेत्रफल में कोई परिवर्तन किया जाता है, तो वह आवेदक को मान्य होगा।

- 10. आवेदक खनन कार्य के दौरान रथल में उपलब्ध सार्वजनिक सम्पति, आवासीय भवन, सार्वजनिक स्थल भवन आदि को हानि नहीं पहुँचायेगा। हानि पहुँचाने की स्थिति में आवेदक स्वयं जिम्मेदार होगा।
- 11. कार्यालय ज्ञाप संख्या-1457/VII-1/2017/68 ख/15, दिनांक 17 नवम्बर, 2017 के बिन्दु सं० 6(तीन)(क)(2) के अनुसार आशय पत्र की समस्त शर्तों को पूर्ण किये जाने के पश्चात निदेशक, भूतत्व एवं खनिकर्म इकाई की स्पष्ट संस्तुति पर शारान द्वारा खनन पटटा स्वीकृत किया जायेगा, परन्तु पट्टाधारक द्वारा स्वीकृत क्षेत्र में खनन कार्य का प्रारम्भ संबंधित मू स्वामियों की सहमति/अनापत्ति के उपरान्त ही किया जायेगा।
- 12. आवेदक द्वारा फर्म का पंजीकरण भागीदारी विलेख, फर्म के सभी भागीदारों का चरित्र प्रमाण पत्र. सभी भागीदारों का खनन अदेयता प्रमाण पत्र. सभी भागीदारों के मूल निवास प्रमाण पत्र. सभी भागीदरों के द्वारा आयकर विवरणी जमा कराये जाने सम्बन्धी आयर अधिकारी द्वारा निर्मत अद्यतन प्रमाण पत्र एवं जी०एस०टी० नं० प्रस्तुत किया जाना अनिवार्य होगा।
- 13. खनन पट्टा क्षेत्रान्तर्गत आने वाले वृक्षों को वन विभाग द्वारा निर्धारित मानकों के अनुसार सरक्षित रखने की जिम्मेदारी आवेदक की होगी।

एन०एस० डुंगरियाल संयुक्त सचिव

संख्याः 1130 (1)/VII-A-1/2020 तद्दिनांकित।

प्रतिलिपिः निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित

- निदेशक, भूतत्व एवं खनिकर्म इकाई, उत्तराखण्ड, देहरादून को उनके उक्तांकित पत्र के सन्दर्भ में सूचनार्थ एवं निम्न निर्देशों के साथ कि उत्तराखण्ड गौण खनिज नीति, 2015 (समय–समय पर यथासंशोधित) के प्रावधानानुसार खनन पट्टा हेतु प्रस्ताव शासन को उपलब्ध कराने का कष्ट करें :-
 - (क) इस आदेश द्वारा स्वीकृत क्षेत्र का सीमाबन्धन प्रत्येक दशा में इस आदेश की दिनांक से 60 दिवस में करा लिया जाय ताकि समयान्तर्गत पट्टाधारक द्वारा पट्टाविलेख का निष्पादन कराया जा सके।
 - (ख) खनन पट्टा क्षेत्र के सीमाबन्धन की सूचना मय सीमाबन्धन रिपोर्ट, मानचित्र आदि के सीमाबन्धन पूर्ण किये जाने की दिनांक से 10 दिवस में शासन को प्रेषित कर दी जाये।
 - (ग) सीमाबन्धन रिपोर्ट में यह प्रमाण पत्र अवश्य दिया जाये कि खनन पट्टे पर स्वीकृत क्षेत्र में सम्मिलित वन भूमि के अलावा कोई अन्य वन भूमि खनन पट्टा हेतु सीमाबन्धित क्षेत्र में सम्मिलित नहीं की गई है तथा सीमाबन्धित क्षेत्र की परिधि से कम से कम 100 मीटर की दूरी पर है।
- 2. जिलाधिकारी, बागेश्वर।
- श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर, हाऊस नं० 346/3, कलावती कालोनी, हल्द्वानी एवं अन्य साझेदार मै० स्टार माइन्स एवं मिनरल्स, हाउस नं० 1516, सावित्री कालोनी हल्द्वानी।
 र्यार्ड फाईल।

आज्ञा से (दिनेश सिंह भण्डारी)

अन् सचिव

ANNEXURE III: COPY OF APPROVED MINING PLAN

Category-B1 (OTFM)

MINING PLAN

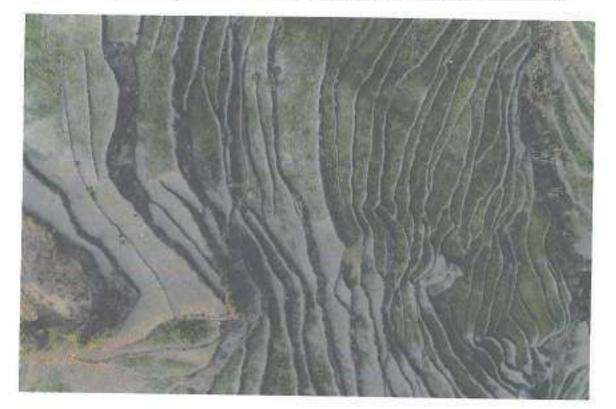
With

PROGRESSIVE MINE CLOSURE PLAN (submitted under Uttarakhand Minor Mineral Concession Rules, 2001, of 34(4)

VILLAGE – KARULI TEHSIL & DISTRICT – BAGESHWAR (UTTARAKHAND)

Lease Area: - 19 879 ha out of 28.264 ha. (Demarcated area - 7.841ha)

Period of Mining Plan-Five Years from the Date of Opening of Mine



LESSEE

SMT. JANKI RATHOR W/o SHRI M.S. RATHOR, HOUSE NO. 346/3, KALAWATI COLONY, HALDWANI & OTHER PARTNER M/s STAR MINES AND MINERALS, HOUSE NO. 1516, SAVITRI COLONY, HALDWANI, DISTT, NAINITAL. MOBILE NO. - 8476037777.

PREPARED BY

HARISH KAINTHOLA मु०ख0/05/खनन/RQP/2015-16 RQP/DDN/141/2002-A

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Chapter –1: Introduction and General Information Part- A Introduction

Sr. No.	Particular	Details
1	GO	LOI No.1130/VII-A-1/2020/1(4)/20 Dehradum was obtained on dated 20.11.2020 for a period of 50 years at vill Karuli, Bageshwar in favou of Smt. Janki Rathor W/o Shri M. S. Ratho House no. 346/3 Kalawati Colony, Haldwan and Partner M/s Star Mines and minerals House No. 1516, Savitri Colony, Haldwani, Distt Nainital. Mobile No 8476037777. Emai Address- Copy of LoI is enclosed as Annexure No.1 Join Demarcation Report is enclosed as Annexure 2 Chalan for approval for Mining plan is enclosed as Annexure-8.
2.	Date of first opening	Fresh lease area.
3.	Letter No. date of first mining plan approval with its proposal & lapse period.	Fresh Grant.
4.	Letter no. & date of approval of mining plan with its proposal & lapse period.	Fresh Area.
5	Validity period of present mining plan with lapse period.	Not applicable
6.	Transfer details & date of transfer	Not applicable
7	Status of Environmental clearance	To be obtained after approval of mining plan.

The history of lease area grant, transfer ownership etc. is given below:

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1.0 GENERAL

(a) Name & Address of the Applicant

Smt. Janki Rathor w/o Shri M. S. Rathor House no. 346/3 Kalawati Colony, Haldwani and Partner M/s Star Mines and Minerals House No. 1516, Savitri Colony, Haldwani, Distt. Nainital. Mobile No. - 8476037777. Email Address-

(b) Status of the Applicant/Lessee Private Individual Owner- Yes,

(c) Mineral (s) which is /are including in the prospecting license (Mining Plan) Soapstone. Fresh mine.

- (d) Mineral (s) which is /are including in the letter of Intent/lease deed Soapstone
- (e) Mineral (s) which is the applicant/lessee intends to mine Soapstone
- (f) Name of recognised person , who prepared the mining plan/scheme of mine/ Mine closer plan

Shri Harish Kainthola, KainGeotech 3/1 Ekta Enclave Way to Seemadwar- ITBP, Opposite Hotel Sun Park Inn, GMS Raod, Dehradun - 248001 (Uttarakhand) Telephone (Cell): 08077856332. Dehra Dun- 248008 (Uttarakhand) E-mail- <u>Kain_geotech2147@rediffmail.com</u>, <u>hkainthola@gmail.com</u> Mobile No. - 09412028745, 09412058990 (Office) Registration No. - **J030/05/377/**RQP/2015-16

RQP/DDN/141/2002-A

Kailash Chandra, 3/1 Ekta Enclave Way to Seemadwar- ITBP, Opposite Hotel Sun Park Inn, GMS Raod, Dehradun - 248001 (Uttarakhand) Telephone (Cell): 08755182584. E-mail – ksati84@gmail.com Registration No. - RQP/UKGMU/NO 012/Year 2019

(g) GST No. PAN No.- Copy of GST NO. is enclosed as Annexure No. 10 & Copy of PAN is enclosed as Annexure No. 9

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2.0

D LIST OF ANNEXURE LOI for ML 1 Joint Demarcation Report 2 Demarcated Khasra map 3 Khasra Detail 4 NOC from land owner 5 **Trial Pit Photograph** 6 Georeferenced Map 7 Chalan for approval of scheme of mining 8 PAN 9 GST 10

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3

3.0 LOCATION AND ACCESIBILITY

(a) Lease Detail (Fresh Mine)

Name of Mine: - Karuli Soapstone Mine, (Smt. Janki Rathor w/o Shri M. S. Rathor House no. 346/3 Kalawati Colony, Haldwani and Partner M/s Star Mines and Minerals House No. 1516, Savitri Colony, Haldwani, Distt. Nainital. Mobile No. - 8476037777. Email Address-

Lat./Long. of any boundary point-The latitude and longitude of boundary pillar no.3 and 4 in north direction are 29°52'15.34"N & 79°49'38.84"E and 29°52'15.56"N & 79°49'45.36"E respectively and the latitude and longitude of boundary pillar no.1 and 9 in southern direction are 29°52'02.81"N & 79°49'39.36"E and 29°52'04.51"N & 79°49'45.93"E respectively.

Date of grant of lease - State Govt. has given its consent to grant mining lease for a period of 50 years vide LOI No. 1130/VII-A-1/2020/1(4)/20 Dehradun, on dated 20.11.2020. Copy of LOI is enclosed Annexure No. 1

Lease was executed on - Yet to be executed.

Period/Expiry date - For 50 years / 19 November 2070

Name of lease holder- Smt. Janki Rathor w/o Shri M. S. Rathor & Partner M/s Star Mines.

Address- House no. 346/3 Kalawati Colony, Haldwani, Distt. Nainital Mobile No-8476037777.

Office Address- House No. 1516, Savitri Colony, Haldwani, Distt. Nainital. Mobile No. -8476037777. Email Address-

(b) Details of applied area with location map (fresh area):

19.879 ha area has been granted out of 28.264 ha and only 7.841ha area has been demarcated out of 19.879 ha area. Details of land use of applied area are tabulated below. Location map of the area is enclosed as Plate- 1. The copy of demarcated Khasara map is enclosed **Annexure No. 3**. The khasara details of the area is enclosed **Annexure No.4**.

Forest		Non- Forest		
				Area (ha)
Forest (specify)	None	1. 2.	Category 1(क) Jotdar land State Govt/ Civil. Land	6.584
		a)	Land under Category 7(事)	0,425
		b)	Category 9(3)≇	0.658
		3.	Land for public use	Concesse)
		a)	Land under Category 10(1)	0.157
		6)	Land under Category 10(2)	0.017
			Total	7.841

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Total lease area/applied area- 19.879 ha out of 28.264 ha. Demarcated area -7.841ha Tehsil & District - Bageshwar, state --Uttarakhand, Village- Karuli.

Whether the area falls under Coastal Regulation Zone (CRZ)? If yes, details existence of public road/ railway line, if any nearby and approximate distance_ No

CTE/CTO: It is a fresh lease therefore consent to operate (CTO) has to be obtained from the department of Uttarakhand Environment Protection & Pollution Control board after approval of mining plan.

Toposheet No. with latitude & longitude of all corner boundary point/pillar

The area is located on Survey of India Toposheet No. - 53 O/13 in latitude 29°52'2.81"N to 29°52'15.55"N and longitude 79°49'37.59"E to 79°49'50.57"E. The applied area is occupied by single block and is bounded by 1, 2, 3, 4, 5, 6, 7, 8 & 9 boundaries pillars. Coordinates of pillars are shown in Surface plan (Plate No. - 3) and also tabulated below.

PILLAR NO	LATITUDE	LONGITUDE
I	29°52'02.81"N	79°49'39.36"E
2	29°52'13.89"N	79°49'37.59"E
3	29°52'15.34"N	79°49'38.84"E
4	29°52'15.56"N	79°49'45.36"E
5	29°52'12.03"N	79°49'43.01"E
6	29°52'10.22"N	79°49'48,11"E
7	29°52'11.93"N	79°49'49.51"E
8	29°52'11.78"N	79°49'50.57"E
9	29°52'04.51"N	79°49'45.93"E

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4.0 DETAILS OF APPROVED MINING PLAN (if any)

- 4.1 Date and reference of earlier approved MP/SOM: Fresh mining lease.
- 4.2 Details of last modifications if any (for the previous approved period) of approved MP/SOM, indicating date of approval, reason for modification: Fresh mining lease.
- 4.3 Give review of earlier approved proposal (if any) in respect of exploration, excavation, reclamation etc. Fresh mining lease.
- 4.4 Give status of compliance of violations pointed out by mining officer /District Magistrate/Dept. Geology and Mining office or other specified person appointed by Government or Director Geology & Mining. Fresh mining lease.
- 4.5 Indicate and give details of any suspension /closure/ prohibitory order issued by any Government agency under any Rule or Court of law: Not applicable.
- 4.6 In case the MP/SOM are submitted for approval of modification specify reason and justification for modification under these rules: No modified MP/SOM has been submitted for approval.

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1.4

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5.0 GEOLOGY AND RESERVES

5.1 Physiography:

Topography

This area lies on southern slope of a hill in a mountainous terrain of rough and rugged topography. The adjacent area is drained by three seasonal *Rollis/Nalas*. The applied area forms a transverse ridge of ending southern slope in the valley. The area has sloppy undulating surface and at places flat gentle sloping cultivated land also. The highest RL is about 1210.4m on the northern side of the applied area, while the lowest RL recorded on the southern side of the applied area is about 1102.1m. General slope of the lease area is $10^{\circ} - 30^{\circ}$ in southern direction.

Drainage pattern

An area is drained by three nalas within the lease flowing almost north to south directions in the applied area.

Vegetation

Mostly about 80% of the applied area is being used for agricultural purposes. Remaining area is either occupied by govt/ grassy land or fruit trees or land for public use. Some fruit trees like Peach, Banana etc. are available within buffer zone.

Climatic condition

The area falls within Lesser Himalayan part. During winter the minimum temperature is 0.5°C and during summer maximum temperature is 33°C. The average rainfall in the area is recorded 979mm per year.

5.2 Geology:

Geology: Surface Geological map with contour interval maximum of 10 meter on a scale of 1:2000/1:1000 may be examined for features detailed below:

(i) Disposition of all lithological units with clear nomenclature and their descriptions.

Regional geology

The area forms the part of Calc zone of Tejam and Pithoragarh. According to Prof. K.S. Valdiya (Geology of Lesser Himalaya, 1980) and D. K. Bancrjee et. al. (Him. Geol., Vol. 5, 1975) the lithostratigraphic sequence of this area is as follow:

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Group/ Formation	Lithology
Berinag Formation	Quartzite, Meta quartzite, Conglomerate, Phyllite
	e Magnesite, dolomitic soapstone with algal structures. se phyllite intercalations
	Unconformity
Sor Slate	Slate, Phyllite, subgrawake

In this region, rocks of Pithoragarh Formation occur. The development of algal stromatolite in carbonates occurrence or magnesite is a common associate of the carbonates. The Calc-Zone rock units are well known for their structural dispositions (windows, half windows in Lesser Kumaon Himalaya) for stromatolites and minerals (magnesite, soapstone and minor metallic occurrences).

(ii) Contacts of lithounits/rock type traced or inferred.

Geology of the applied and surrounding areas

The applied area and its surroundings are constituted in part, by Gangolihat Magnesite sequence. The local lithological sequence is as follows:

Upper Carbonates

Pithoragarh Formation

- Middle Talcose Phyllite
- Lower Carbonates

In the applied area and its surrounding consists of Gangolihat magnesite. This rock unit contains magnesite, talcose phyllite and talc lenses etc.

The Upper Carbonates Zone contains magnesite and sporadic magnesite, the Middle Talcose Phyllite Zone contains the talc in pockets and lenses, whereas the Lower Carbonate Zone contains magnesite intercalated with phyllite/ talcose phyllite. Pockets/ lenses or veins of soapstone also occur within carbonates of Gangolihat Magnesite.

The applied area lies in the village Karuli which is located almost on south-western sloping part of small hill. Both overburden and outcrops of soapstone are present in exploratory opening, magnesite boulders occur on the surface as well as intermixed with soapstone in the applied area. The lithounits found in the project area are:

Overburden: Almost whole block of the applied area is covered with overburden material. This overburden comprises grey to brown to dark brown, fine to medium grained siltyclayey soil. Small fragments of soapstone and magnesite are also present in this soil. Thickness of this soil /overburden varies from 0.5 to 1.5 m and average thickness appears 1.0m

Soapstone and magnesite: Intermixing of soapstone [Mg₃Si₄O₁₀(OH)₂] with magnesite occur below the soil cover. Mostly this soapstone or talc is highly prone to easy weathering and erosion due to its softness and thus its outcrops are rare. In shallow depth soapstone is massive to highly bedding and shows brightness/whiteness characteristic which generally varies from medium to high. At places talc pockets are crushed and crumbled due to

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(ik/ Harish Kainthola मुठख0/05/खनन/RQP/2085-16 association with shear zones present in the area. In the applied area soapstone is fine grained, off-white to white, foliated and sometimes powdery due to crushing. In specimens or fragments it shows flexibility in edges due to thinness and trimming. Overburden comprises magnesite boulders intermixed with soapstone. This intermixed magnesite boulders in soapstone are about 60%.

Structural features: The regional and local structural features as could be deciphered in the applied block are as follows:

- (a) The algal stromatolites are absent in this area. Regionally they have been reported to be significant in interpreting reversal of Upper and Lower Carbonate dispositions.
- (b) It is evident that the Himalaya structural features and consequent impact on all lithounits is post mineralization (magnesite/ soapstone etc.) is evident. Even some magnesite may be contemporary to depositional/ diagenetic phases and it has also been affected by Himalayan Orogenic Upheavals.
- (c) The Pre-Tertiary hydrothermal activity and mineralization has also been probably affected by Pre-Tertiary structural disturbances. It has been superposed by Tertiary (Paleocene to Pleistocene) Himalayan tectonic effects (crushing, lenticular shape etc. changes in thickness of soapstone etc.) and low grade metamorphism (phyllite to low grade schistose effects).
- (iii) Attitude like strike and dip available in adequate numbers.

(iv) Structural feature such as joints, folds, faults and their attitudes.

(i) The typical bedding dip/ strike are not seen within the applied area, not even clear cut carbonate bands are exposed presently.

(ii) The cleavage/ foliation/ banding attitudes of soapstone/ talcose phyllite units vary as follows:

General Strike	Dip Amount	Dip Direction	Attitudes
N245° to N 275°	30° - 35°	N 155 ⁰ - N 185 ⁰	Bedding
N240° to N 250°	40° - 50°	N 150°- N 160°	Bedding
N 030° to N 050°	50° - 80°	N 140° to N 160°	Joint
N 050° to N 340°	60 [°] - 75 [°]	N 320° to N 070°	
N 80° to N 110°	40 ⁰ - 55 ⁰	N 200 ⁰ to N 170 ⁰	Joint
	40 - 35	19 200 10 N 170	Joint

The rocks found in the area in general seems to have undergone the more than one phases of tectonic activity. The upper and lower carbonates zones of Gangolihat Magnesite seem to be inverted. Rocks/ minerals in the area are crushed and sheared. Local trend of magnesite outcrops and talc pockets show the dip towards valley side i.e. towards southern side. The bedding plane dips towards SSE and SE direction with amount of 30° to 50°. General strike direction varies towards N240° to N275°.

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(v) Delineation of mineralization/ore zones with definite demarcation of observed and inferred.

During the exploration it is observed that mineral scapstone occurs in veins and lenses having 0.5m to 4.0m thickness, closely spaced extending surrounding area, i.e., in adjoining lease area. Scapstone/talc is metasomatic/hydrothermal product because of the emplacement of basic rock or intermediate igneous rock in subsurface condition which could have given rise to hydrothermal alters the basic rock.

i) Physiographic control: In general the soapstone lenticular/ tabular bodies follow the topography of the area having gentler slopes. The soapstone being soft mineral, it is found always along the slopes or below the comparatively gentle slope planes of terraced agricultural fields while in the steep cuts slopes and ridges either magnesite outcrops occur.

ii) Lithological controls: The presence of soapstone within the carbonate sequence suggests that the soapstone mineralization in this area & in the surroundings is confined to carbonate horizons only, showing lithological controls of mineralization. Soapstone/ tale being derived by hydrothermal activity from magnesium rich rocks, the rock like magnesite, and basic / ultrabasic rocks are likely to be found in close proximity of soapstone. The soapstone pockets into magnesite fragments within soapstone bodies occurring in main magnesite rock indicate a replacement origin. Locally discordant relationship between soapstone and magnesite strike may be due to structural/ flowage characters. Soapstone is grey to greyish, milky white, fine grained, present in irregular shapes formed by the replacement of magnesite. The lenses of soapstone form as pinch and swale structure with variable depth and thickness.

iii) Structural control: The soapstone mineralisation within the area lies in the anticlinal axis of Pungar valley. The one limb of the anticline is exposed the upper reaches of village Bijaipur which shows the quartzite outcrops while the other limb is exposed towards Dhopar to Banlekh on Bageshwar-Rema motor road which also shows the quartzite outcrops.

5.3 Details of Exploration already carried out.

It is a fresh mine. A trial pit of 5m*4m*3m has been dug at the coordinate 29°52.146'N, 79° 49.660'E to ascertain the mineral. Soapstone is present below 0.5m thick soil.

5.4 Exploration proposed to be carried out (in case adequate total reserves is not established for the tenure of lease)

During five years, the unexplored area shall be explored with five trial pits having the dimension 3m x 3m x 6m & five bore holes upto 30m depth shall be dug besides pitting to ascertain the continuity & grade of soapstone. The proposed exploration shall be carried out under the supervision of geologist. The core shall be stored in core box serially with suitable indexing & shall ensure submission of cores as per the manual issued by GSI from time to time. No cores shall be destroyed with prior permission. The year wise exploration programme is given below:

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Year	Name of Pit	Location	Expenditure to be incurred
2020- 21	SPT-1	At central, the coordinates N 3304907 to E 386831.	Rs. 2000
2021- 22	SPT-2	At central, the coordinates N 3304769 to E 386807.	Rs.2000
2022- 23	SPT-3	At central, the coordinates N 3304817 to E 386872.	Rs.2000
2023- 24	SPT-4	At central, the coordinates N 3305029 to E 386782.	Rs.2000
2024- 25	SPT-5	At central, the coordinates N 3305003 to E 386765.	Rs.2000

Exploration programme: For five year.

Year	Drill Holes	Dept h	Angle	Location	Expenditure to be incurred
2020-21	SDH-1	30m	Vertical	At the coordinate N 3304852& E 386807	Rs. 12000
2021-22	SDH-2	30m	Vertical	At the coordinate N 3304857 & E 386843	Rs.12000
2022-23	SDH-3	30m	Vertical	At the coordinate N 3304719 & E 386835	Rs.12000
2023-24	SDH-4	30m	Vertical	At the coordinate N 3305006 & E 386740	Rs.12000
2024-25	SDH-5	30m	Vertical	At the coordinate N 3305015 & E 386814	Rs.12000

The location of proposal bore holes is shown in geological map (Plate - 4)

Details of Reserve & Calculation:

i) Measured Mineral Resources (331): A 'Measured Mineral Resources' is that part of mineral Resource for which tonnage, densities, shape, physical characteristics, grade & mineable content can be estimated with a high level of confidence. It is based on detailed & reliable information gathered from exposed mining pits. The locations of mining pit 1 & 2 are spaced closely & provide confirm geological setup & grade continuity.

ii) Indicated Mineral Resources (332): An Indicated Mineral Resources is that part of a mineral Resource for which tonnage, densities, shape, physical characteristics, grade & mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling & testing information gathered from outcrops, trenches, working pits etc.

iii) Blocked Measured Mineral (211): The "Blocked Measured Mineral" is that part of measured mineral which is not economically mineable this material is identified as being

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possibly economical viable subject to changes in technological, economic, environment & other relevant conditions.

iv) Block indicated Mineral Reserve in Safety Barrier & Ultimate pit limit (221, 222): This category of mineral reserve is not economically mineable. This material is identified as being possibly economically viable subject to change in technological, economic, environment & other relevant conditions. This type of mineral resource has a lower level of confidence than Blocked Measured Resource.

v) Ultimate Pit Level: The depth of pit has reached 9m & proved & probable reserves have been estimated upto depth 15m from ground profile. Therefore ultimate depth of pit shall be 15 m from ground surface. In future exploration to be carried out by bore holes & depth of mineralization is further increased hence depth of ultimate pit limit will modified.

5.5 Reserves/ Resource Estimation:

The mining lease has been applied only in agriculture/nap land. Geological reserves have been estimated through geological cross sections. The strike influence of sections varies from 21.53m to 49.17m. The area of each section line is calculated and sectional area is multiplied by the strike influence in between two section line to give the volume of each section line. The volume is multiplied by the bulk density to give the tonnage. Bulk density of soapstone has been assumed 2.6 and it has been taken as per the past experience in and around in mines located in the adjacent area and with observations of nature &behaviour of the soapstone. The incidence of soapstone has been taken as 40% of the total volume in view of information collected from the nearby mines and also acquiring observation during development of exploratory pits and trial pits in the nap land areas. The general depths of excavated pits vary between 5m to 9m. Ultimate recovery of the soapstone has been taken as 95% of the in-situ reserves (40%). Incidence of interburden (Low grade magnesite) has been taken as 60% of the total volume as per observation of working mines in nearby area. On the basis of past mining being carried out in the surrounding areas the depth of working pits have gone more than 9m and soapstone persists in depth.

Section	Area (m²)	Strike Influence (m)	Volume (Cum)	Mineable Reserves (in Tonnes)	Blocked Reserves (in Tonnes)	Total Reserves (in Tonnes)
LB to A-A'	1695.31	21.53	36493.81	37953.57	7458.05	45411.61
A-A' to B-B'	2119.137	40.18	85148.81	88554.76	17401.41	105956.17
B-B' to C-C'	1758.14	49.17	86441.09	89898.74	19488.06	109386.79
C-C' to D-D"	2117.61	47.90	101438.77	105496.32	19591.00	125087.31
D-D' to E-E'	1515.60	41.82	63386,81	65922.28	14925.41	80847.69
E-E' to F-F'	1794.05	34.81	62457.61	64955.91	19435.91	84391.82
F-F' to G-G'	1323.52	35.80	47376.81	49271.88	17121.70	66393.58
G-G' to H-H'	1243.40	36.19	44997.12	46797.00	10681.60	57478.60
H-H ^a to LB	638.06	24.56	15668.93	16295.69	7602.35	23898.03
Total	14204.82		543409.75	565146.14	133705.47	698851.61
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Proved Geological Reserves

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Section	Area (m2)	Strike Influence (m)	Volume (Cum)	Mineable Reserves (in Tonnes)	Blocked Reserves (in Tonnes)	Total Reserves (in Tonnes)
LB to A-A'	929,84	21.53	20015.99	20816.62	9386.91	30203.53
A-A' to B-B'	1162.30	40.18	46702.09	48570.17	21901.91	70472.08
B-B' to C-C'	950.46	49.17	46730.48	48599.70	24195.87	72795.57
C-C' to D-D"	1191.39	47.90	57070.41	59353.23	23995.45	83348.68
D-D' to E-E'	813.95	41.82	34041.57	35403.23	18451.75	53854.98
E-E' to F-F'	926.86	34.81	32267,28	33557.97	22466.37	56024.34
F-F to G-G'	652.97	35.80	23373,86	24308.82	19859.55	44168.37
G-G' to H-H'	709,71	36.19	25683.43	26710.77	11586.38	38297.15
H-H to LB	282.56	24.56	6938.89	7216.44	8677.07	15893.52
Total	7620.02		292824.00	304536.96	160521.27	465058.22

Probable Geological Reserves

Blocked Reserves of Soapstone Feasibility mineral Resource (211)

	Section Area (m ²)			Volume (Cum)		Blocked Reserves (Tonnes)	
Section Line	Blocked in (UPL)	Blocked Under 45°	Strike Influence (m)	Blocked in (UPL)	Blocked Under 45°	Blocked in (UPL)	Blocked Under 45°
LB to A-A'	155.04	178.10	21.53	3337.34	3833.859	3470.83	3987.21
A-A' to B-B'	193.79	222.63	40.18	7786.82	8945.311	8098.29	9303.12
B-B' to C-C'	181,05	200.08	49.17	8901.51	9837.002	9257.58	10230.48
C-C' to D-D"	175.56	217.68	47.90	8409.90	10427.6	8746.29	10844.70
D-D' to E-E'	179.12	164.03	41.82	7491.23	6860.124	7790.88	7134.53
E-E' to F-F'	208.91	327.90	34.81	7273.00	11415.37	7563.92	11871,99
F-F' to G-G'	197.41	262.50	35.80	7066.55	9396.624	7349.21	9772.49
G-G' to H-H'	191.28	92,53	36.19	6922.07	3348.703	7198.95	3482.65
H-H to LB	192.96	104,71	24.56	4738.61	2571.337	4928.15	2674.19
Total	1675.12	1770.16	- any targe	61927.02	66635.93	64404.10	69301.37

Pre-Feasibility mineral Resource (222)

	Sectio	n Area		Volum	e (Cum)	- 30 M A A A A A	Reserves ines)
section Line	Blocked in (UPL)	Blocked Under 45°	Strike Influence	Blocked in (UPL)	Blocked Under 45°	Blocked in (UPL)	Blocked Under 45°
LB to A-A'	102.93	316.36	21.53	2215.73	6810,1425	2304.36	7082.55
A-A' to B-B'	128.66	395.45	40.18	5169.83	15889.693	5376.63	16525.28
B-B' to C-C'	121.06	352.14	49.17	5951.83	17313.431	6189.90	18005.97
C-C' to D-D"	117.55	364.11	47.90	5630.93	17441.619	5856,17	18139.28
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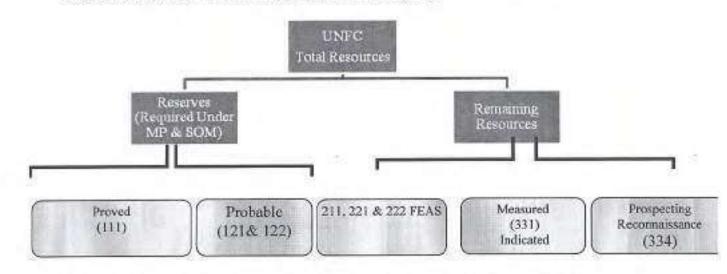
Total	1118.62	3005.44		41365.66	112981.71	43020.29	117500.98
H-H' to LB	128.82	210.93	24.56	3163.39	5179.9525	3289.92	5387.15
G-G' to H-H'	128.01	179.84	36.19	4632.47	6508.2819	4817.77	6768.61
F-F' to G-G'	132.91	400.55	35.80	4757.73	14337.992	4948.04	14911.51
E-E' to F-F*	139,10	481.41	34.81	4842,69	16759.59	5036,40	17429.97
D-D' to E-E'	119.58	304.64	41,82	5001.06	12741.008	5201.10	13250.65

5.6 Mineral Reserves/Resources As per UNFC classification:

i) Details of UNFC Classification:

UNFC is three digit code based system, the economical viability axis representing the first digit, the feasibility axis the second digit & geological axis the third digit.

Codes 1, 2 & 3 in decreasing order. The heights category of resources under UNFC system has code (111) & for the lowest category the code is (334).



Code (111): This code is provided for the economically mineable part of the measured mineral resources (Proved category reserves).

Code (121, 122): This code is provided for the economically mineable past of the (333) indicated mineral resources (Probable category reserves).

Code (211): This part of the measured mineral resources (Proved Category), which as per feasibility study has not found economically mineable. The reserves blocked in 7.5m buffer zone of the distances restriction from permanent structure.

Code (222): The part of indicated mineral resources (probable category) which has pre feasibility study has not found economically mineable. The reserves blocked 7.5m buffer zone & distances restricted from permanent structure.

Code (333): Tonnage, grade & mineral contents can be estimated with low level of confidence & resources are also inferred from geological part.

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দিং) Harish Kainthola मु0ख0/05/खनन/RQP/2015-16 The mineral reserves/resources calculated within lease area are as below:-

Category	UNFC Code	Quantity in tonnes	Grade
A. Total Mineral Reserve			
Proved Mineral Reserve	111	565146.14	Paper & Detergent
Probable mineral Resource	121 & 122	304536.96	Paper & Detergent
B. Total Remaining Resources		0	
Feasibility mineral Resource	211	133705.47	Paper & Detergent
Prefeasibility mineral resource	221 & 222	160521.27	Paper & Detergent
Measured mineral resource	331	Nil	Nil
Indicated mineral resource	332	Nil	Nil
Inferred mineral resource	333	134881.22	Paper & Detergent
Reconnaissance mineral resource	334	Nil	Nil
Total Reserves + Resources	N DICON	12,98,791.06	

Table No. 2

Section Line	Area (111)	Area (122)	Strike Influence	Volume (cum)		ROM of 5 40% (1	Soapstone tonnes)
Lance	m ²	m	(m)	111	122	111	122
LB to A-A'	1695.31	929.84	21.53	36493.81	20015.99	37953.57	20816.62
A-A' to B-B'	2119.137	1162.30	40.18	85148.81	46702.09	88554.76	48570.17
B-B' to C-C"	1758.14	950.46	49.17	86441.09	46730.48	89898.74	48599.70
C-C' to D-D"	2117.61	1191.39	47.90	101438.77	57070.41	105496.32	59353,23
D-D' to E-E'	1515.60	813.95	41.82	63386.81	34041.57	65922.28	35403.23
E-E' to F-F*	1794.05	926.86	34.81	62457.61	32267.28	64955.91	33557.97
F-F' to G-G'	1323.52	652.97	35.80	47376.81	23373.86	49271.88	24308.82
G-G' to H-H'	1243.40	709.71	36.19	44997.12	25683.43	46797.00	26710.77
H-H' to LB	638.06	282.56	24.56	15668.93	6938.89	16295.69	7216.44
Total	14204.82	7620.02		543409.75	292824.00	565146.14	304536.96

CATEGORISATION OF GEOLOGICAL RESERVE

INFERRED MINERAL RESOURCES (333)

Section	Area 333 (m²)	Strike Influence (m)	Volume (Cum)	Reserves (in Tonnes)
LB to A-A'	424.74	21.53	9143.06	9508.79
A-A' to B-B'	530.92	40.18	21332.96	22186.28
B-B' to C-C'	410.67	49.17	20191.23	20998.88
C-C' to D-D"	531.10	47,90	25440.95	26458.58
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	3373.36		129693.48	134881.22
H-H' to LB	100.63	24.56	2471.07	2569.91
G-G' to H-H'	320.90	36,19	11613.12	12077.65
F-F* to G-G*	294.60	35.80	10545.57	10967.39
E-E' to F-F'	402.53	34.81	14013.45	14573.99
D-D' to E-E'	357.27	41.82	14942.06	15539.75

5.7 Availability of Mineral: The soapstone of area is weakly foliated & whiteness of soapstone appears 78% to 90% is being used in soapstone, detergent & paper industries.

5.8 Anticipated Life of Mine: As per present data the total proved & probable reserves upto depth 15m comes out 836233 tonnes & same has been considered as mineable reserves also within envisaged average rate of production of soapstone 22800 /annum. The anticipated life of mine comes out 37 year. With the proposed exploration in future, the mineable reserves may be enhanced & accordingly life of mine may be increased.

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6.0 Mining:-

6.1 Opencast mining:

(i) Existing method of mining:

It is a fresh mining lease and mining is proposed open cast manual mining. Mining is being carried out with formation of benches. The soil is scrapped manually and is mixed with interburden material and dumped near the working pits. Below the soil, soapstone is found which is intermixed with Magnesite boulder and magnesite has been considered as interburden. The soapstone is exploited with the help of pickaxe, crowbar, chisels & spade. Sorting and sizing is being carried out manually at the pit head. Different grade of soapstone is filled into 50 Kg plastic bags and transported up to the PWD road by mules.No drilling and blasting is being carried out for the exploitation of soapstone. Except sorting & dressing no other means of beneficiation is being carried out within the lease hold.

The details of mining pit & dump lying in various khasra number & its ownership/occupancy is given below:

		100.0	
- WIN	$nm\sigma$	Pits	
17.8.8.8	u 10 2	1 140	

Mining pits	RL (m)	Coordinates	Khasra Nos.	Name of Owner Owners
I year Pit-1	1127- 1133	N 3304762 to N 3304934 & E 386874 to E 386851	927, 943, 962, 971, 972, 973, 975, 976, 977, 989, 990, 991, 1049, 1115, 1116, 1117, 1119, 1120, 1121, 1122, 1123, 1120, 1121, 1122, 1123, 1124, 1126, 1127, 1128, 1129, 1130, 1132, 1133, 1134,1137, 1138, 1142, 1144, 1146, 1147, 1150, 1151, 1153, 1154, 1155, 1159, 1164, 1165, 1166, 1168, 1191, 1625, 1626	Guman Singh, Sadho Singh, Keshar Singh, Ram Singh, Dhan Singh, Kundan Lal, Bhupal Singh, Balwant Singh, Bachai Singh, Rauli, Prem Singh, Jagdish Singh
ll year Pit-1	1121- 1130	N 3304713 to N 3304900 & E 386774 to E 386881	950, 1049, 1113, 1115, 1116, 1117, 1119, 1121, 1122, 1123, 1126, 1128, 1130, 1133, 1134, 1135, 1137, 1138, 1139, 1142, 1143, 1144, 1146, 1147, 1148, 1154, 1157, 1158, 1159, 1160, 1161, 1162, 1168, 1482, 1489, 1600, 1616, 1617, 1618, 1619, 1620, 1621, 1622, 1623, 1624,	Rauli, Keshar Singh, Ram Singh, Dhan Singh, Kundan Lal, Guman Singh, Bhupal Singh, Balwant Singh, Bachai Singh, Sadho Singh, Rauli, Balwant Singh, Jagdish Singh, Joga Singh

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			1625, 1626, 1627, 1628, 1629, 1630, 1631, 1632,	
			1633, 1634, 1635, 1642, 1645,	
III year	1115-	N 3304703 to	1121, 1122, 1123, 1139,	Kundan Lal,
Pit-1	1124	N 3304856 &	1148, 1157, 1158, 1159,	Balwant Singh, Bhupal
	- decen	E 386822 to E	1160, 1161, 1162, 1199,	Singh, Ram Singh,
		386896	1482, 1484, 1487, 1488,	Rauli, Bachai Singh,
		- 1000 LOA 11	1489, 1497, 1593, 1595,	Ram Singh, Keshar
			1596, 1597, 1598, 1599,	Singh, Dhan Singh,
			1600, 1601, 1608, 1615,	Jagdish Singh, Joga
			1616, 1617, 1618, 1619,	Singh, Kundan Singh
			1620, 1621, 1622, 1627,	
			1628, 1629, 1633, 1634,	
			1635, 1642, 1644, 1645,	and the second
IV year	1172-	N 3304981 to	253, 255, 256, 272, 273, 274,	Dev Ram, Joga Ram,
Pit- 2	1187	N 3305061 &	275, 276, 308, 309, 899, 900,	Nandan Singh, Sadho
		E 386732 to E	901, 902, 903, 904, 905, 906,	Singh, Guman Singh
	-	386832	925, 945	
V year	1160-	N 3304936 to	906, 907, 908, 909, 910, 911,	Dev Ram, Sadho Singh
Pit- 2	1175	N 3305044 &	912, 914, 915, 917, 918, 919,	Joga Ram, Chanchal
		E 386837 to E 386828	920, 922, 923, 924, 932, 933	Singh, Guman Singh

Soil Dump

Soil Damp	Coordinates	Khasra	Name of Land owner
I Year	N 3304871to N 3304892 & E 386757 to E 386777	869, 870, 871, 1001, 1002, 1003, 1004	Jogaram, Government Land
II year	N 3304888 to N 3304914 & E 386768 to E 386787	869,871,913,916,927,999,1 000,1001	Jogaram, Chanchal Singh, Government Land, Guman Singh
III year	N 3304914 to N 3304935 & E 386778 to E 386793	916,927,928,934,936,937,9 43,990,992	Government Land, Guman Singh, Sadho Singh
IV year	N 3304975 to N 3304996 & E 386780 to E 386806	924,925,926,930,931,934	Guman Singh, Government Land
V year	N 3304988 to N 3305010 & E 386800 to E 386825	930,931,933,934,940,941	Guman Singh, Sadho Singh



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Interburden Dump

Interburden Dump	Coordinates	Khasra	Name of Lease Holder/Holders
I year	N 3304862 to N 3304888 & E 386766 to E 386786	871, 999, 1000,1001, 1002, 1003, 1004	Jogaram, Government Land
II year	N 3304884 to N 3304904 & E 386777 to E 386795	871, 913, 916, 917, 990, 992, 998, 999, 1000, 1001	Jogaram, Chanchal Singh, Government Land, Guman Singh, Sadho Singh
III year	N 3304905 to N 3304933 & E 386787 to E 386803	920, 927, 934, 937, 943, 944, 982, 990, 992, 995	Sadho Singh, Guman Singh, Government Land, Sadho Singh
IV year	N 3304966 to N 3304988 & E 386786 to E 386811	930, 932, 934, 937, 938,	Guman Singh, Government Land, Sadho Singh
V year	N 3304980 to N 3305002 & E 386806 to E 386831	934, 938, 946, 990, 994	Guman Singh, Sadho Singh, Government Land

Plantation

Plantation	Coordinates	Khasra	Name of Lease Holder/Holders
I year	N 3304812 to N 3304934 & E 386844 to E 386894	963, 1142, 1143, 1154, 1156,1161,1162, 1163, 1165,1166, 1482,1484, 1489,1496,1502	Guman Singh, Bachai Singh, Keshar Singh, Balwant Singh, Ram Singh, Government Land, Bhupal Singh Rauli, Dhan Singh
II year	N 3304712 to N 3304815 & E 386787 to E 386897	1480,1502,1503,1504,1509,1 510,1514,1515, 1516,1517,1520,1524,1525,1 526,1527,1528, 1531,1533	Keshar Singh, Dhan Singh, Bhupal Singh, Jagdish Singh, Ram Singh, Bhupal Singh
III year	N 3304711 to N 3304797 & E 386753 to E 386889	1048,1051,1053,1105,1106, 1107,1577,1569, 1588,1604,1607,1609,1614, 1637,1642,1643, 1644,1645,1693,1696,1701, 1707,1708,1724, 1725,1726	Bachai Singh, Keshar Singh, Ram Singh, Government Land, Kushal Singh, Balwant Singh, Lal Singh Dhan Singh, Bhupal Singh, Diwan Singh, kundan Singh, Jagdish Singh

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IV year	N 3304972 to N 3305060 & E 386730 to E 386835	242,252,253,268,271,273,277 ,278,280,281,284, 285,286,287,306,307,308,309 ,310,313,873,891, 892,895,896	Khal, Rauli, Devram, Jogaram
V year	N 3304934 to N 3305061 & E 386833 to E 386847	252,900,901,902,904,905,918 ,920,921,923,924, 933,939,935,940,941,942,943 ,946,948,950,951, 953,956,957,959,960, 961,962	Rauli, Devram, Sadho Singh, Guman Singh

(ii) Proposed method of mining:

Excavator shall be deployed for the removal of overburden & interburden. Soapstone is soft mineral therefore no drilling & blasting shall be required. No further beneficiation will be required except breaking & sorting. From road side the soapstone bags will be loaded into trucks through manually and transported to Haldwani The salient points of proposed method of mining are given below:-

- The mining will be done semi-mechanized way in open cast method in quite a
 systematic manner by forming upto 9 m high benches with 1.5m to 3.0m sub-benches.
 However, there may be minor variation in the width and height which the lessee will
 keep on mending.
- The top soil and interburden to be scrapped with the help of JCB machine, dozer, shovels, pickaxe, spade & crowbar and will be stacked separately in dump yard located near the working pit.
- The extracted mineral is properly sorted out at the mine site. Crow bars are sometimes
 used to dislodge the mineral.
- The excavation for soapstone will be made through JCB Machine, dozer, shovels, pickaxe, spade & crowbar.
- It is proposed to make 5m to 9.0m height benches which will be sliced in three stages each of 3.0m height with 1.5m height sub benches.
- The slope of the faces will be kept 60⁰-70⁰ and the ultimate slope of the pit will remain 45⁰.
- Developmental work will be done by construction of road/track to different working benches, removal of top soil and interburden.
- · The soil will be filled into the bags, loaded on mules and unload into stockyard.
- The interburden generated during mining will be separately stacked and places shown within the applied area which will be backfilled.
- Sorting of high grade soapstone will be done on the benches by the labourers and it will be graded.
- The local people will be used for removal of mineral to the nearest road point from where the minerals will be transported by trucks to Haldwani.

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- The mineral will be loaded over the trucks by the manual labour. The pit will be connected by track/foot path to the main road.
- The slope of track may vary from 1:8 to 1:20.
- · Each mining face will be connected by track/road having width 3.0m.
- Exploitation of soapstone is small scale of mining and does not require any drilling & blasting.
- The average rate of production of soapstone is estimated in between 20000 to 24000 tonnes from I year to V year.
- · Proper precautionary measures shall be taken to prevent soil erosion.
- · The recovery of the soapstone will be 40% of the total excavation.
- Office, store, first aid centre, drinking water shed, rest shelter etc. will be constructed temporarily within the applied area.
- The mining is confined in the applied area and mining benches of the pit will be backfilled to retain its original topography therefore the efforts for afforestation would be done inside the applied area in between lease boundary and UPL, about 0.495 area will be covered by 2295 saplings upto five year. Upto lease period 22950 saplings will be done in *Van Panchayat* and forest land after taking due permission from concerning authority.
- The top soil and interburden are stacked separately in dump yard within the applied area and will be used for reclamation of the pit after exploitation of the mineral.
- Mining operations shall be carried out scientifically by following the provisions of Mining and Minerals (Development & Regulation) Act, 2015, MCDR Notification 2017, Uttarakhand, Metalliferrous Mines Regulations (MMR) 1961, UKMMCR 2001 and time to time directions/amendment given by Geology & Mining Unit & State Government will growth generated on such boundary to isolate mining from rest of the area not be over looked at any stage.
- 7.5 m un-mined barrier will be maintained all along the lease boundary and vegetation.
- Exploitation of the soapstone will not be done in land for public use.

It will be open cast mechanized mine. Due to the scarcity of workers it is not possible to carry out mining operation systematically & scientifically through the formation of benches. Therefore lessee has left no option but to deploy an excavator for systematic & scientific mining, conservation of mineral & protection of environment. It has been revealed from past mining experience that average recovery of waste rock / boulders is around 60% of total ROM. The rock formation is hard & rock breaker may be deployed for the removal of hard strata. Lessee intends to set up small crusher unit so that waste rock/ boulders shall be utilised for making aggregates. If waste material is used for making aggregates, the problem is disposal of waste shall be solved & govt, will earn revenue. Chemical analysis of soapstone and waste material can be carried out from Laboratory of Directorate of Geology & Mining, Bhopalpani, Dehradun.

Extraction & management of minerals has to be guided by long- term national goals & perspective & integrated into the overall strategy of the country's economic development. Mining technology will be upgraded to ensure extraction & utilisation of entire Run of

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Mines (ROM). There shall be an adequate & effective legal & institutional framework promoting zero waste mining as the ultimate goal & commitment to prevent sub-optimal & unscientific mining.

Mining shall be carried out from higher level & subsequently advance to upper levels. As soon as mining pits reach its maximum economical depth backfilling shall be commenced from lower level to restore the maximum original topography of the area. This is common practice of soapstone mining in Kumaon Himalayas. Backfilling in both the pits shall commenced from first year onwards to restore the mined out pit to its maximum original topography. The average depression will be 2.0m with respect to its original topography.

The development activities along with khasra details are shown in year wise development plan.

All quantities of waste material to be generated each year shall be dumped with in lease area secured with retaining wall.

The broad parameters of working benches:

Item	Details			
i) Method of Mining	Mining operation has been proposed by mechanized open cast method.			
ii) Benches parameters	The broad parameters of working benches:			
Bench Height	5.0m to 9.0m			
Width	8.0m			
Haul road width	6.0m			
Bench slope	68 ⁰			
Over all Pit slope	32 ⁰			
Overall depth of mine during plan period	In pit-1 depth of mine varies between 3m to 8m (from 1133mRL to 1118mRL) while in pit- 2 depth of mine varies between 8m to 9m (From 1187m RL to 1163m RL).			
Gradient of Haul Road	1:16			
Grid reference of proposed working location	Pit 1 will be in between coordinates N3304703 to N3304856 & E386774 to E 386851 & while in Pit 2 it is in between coordinates N 3304936 to N 3305044 & E386732 to E386828.			
Water table	No water table will be encountered due to proposed mining activities.			
Pumping of water	No water will accumulate in the mining pit therefore no such proposal has given for pumping water.			
Surface water management	Seasonal drainages exist within area & flow north to south direction. Mining activities are			

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	proposed for away from drainage & mining operations shall be temporarily closed during monsoon period. During monsoon period all mining pits shall be backfilled, therefore there shall be no adverse impact on water on water regime. Few check damps are proposed across the drainage to settle down suspended solids if any.
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Retaining wall having width & height 1.0m shall also be erected at the base of backfilled pit and at the base & side of dump. Check dam having dimension of 8.0m to14.0m x 2.0m x 1.0m shall be erected across the drainage to control the siltation during rainy season. Periodically cleaning of check dam & shall be undertaken for smooth flow of water.

The year wise completion of activities of check dams & retaining walls during plan period is as below:

Activities	Year								
	2021-22	2022-23	2023-24	2024-25	2025-26				
Retaining wall at the edge of backfilled pit	132m	158m	-	227m					
Retaining wall at the base & side of dump	136m	138m	135m	134m	133m				
Check dam	l nos.	1 nos.	l nos.	1 nos.	1 nos.				

Geotechnical Studies: Geotechnical studies like slope failure, slip failure, rock failure etc. shall be carried out yearly. The retaining wall having proper shape & size shall be erected considering all technical parameters.

The width of benches shall kept minimum 3m and height of benches shall be kept 5.0m to 9.0m & slope of faces shall be kept 68°. Approach road having width 3.0m gradient 1:16 shall be provided to connect each mining faces. In Pit 1 & Pit 2 mining faces shall advance towards south to southeast direction & alignment of faces by & large in southeastern direction. During first year to fifth year interburden to be generated from pit 1 & pit 2 shall be dumped separately towards slope of working pits & 70% quantities shall be used for backfilling. Initially interburden will be filled in the mined out pit & lateral on soil shall be spread over it, levelled it & restore to its maximum original topography. After backfilling the area shall be used for agriculture purpose.

Excavator shall be deployed to remove the interburden & dump on dumping ground. For the breaking of hard rock/boulders, rock breaker shall be used.

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দি Harish Kainthola मुठख0/05/खनन/RQP/2015-16 The make & model of excavator is as below:

Make & Model	Bucket Capacity	Boom length
Hundai-210	lcum	3mm
Rock Breaker	Imtr length	Dia 6"

Mining activities shall be carried out in owl shift only & excavator/rock breaker shall be deployed from 8.0am to 5.0pm.

The proposal of mining is given in two pits and area of proposal of mining is given in fresh land. In pit-1, 1.299 ha area and in pit-2, 0.530ha area shall be broken due to mining pit during five years. Out of 19875.42 cum overburden 13460.02 cum from pit-1 and 6415.40 cum from pit-2 waste quantities shall be backfilled /reclaimed, levelled it & put it use for agriculture purpose.

(iii) Last five year production target & achievement:

It is a fresh lease and no mining activity has been done so far.

(iv) Proposed five year production target:

Mining plan is being prepared for five years. Mining will be done by using semimechanised method to achieve the target within stipulated period and increasing the production as per demand in the market. A strip of 7.5m wide has been marked all along the lease boundary for plantation growth and other mining related allied activities like dump yard etc. One JCB having the capacity of 1/2cum will be utilised to achieve the proposed production. Year wise production target for proposed three year are given below.

Year	I	11	III	IV	V	Total
Proposed Production (Tonne)	20000	24000	24000	23000	23000	114000

I Year (2021 - 2022): Pit -1

In this year 0.455 ha area will be mined out from pit-1.About 204 m long road/ track having width of 3.0m and gradient of 1.20 will be made for the transportation of mineral and interburden. About 21618.94 cum of interburden and about 3789.20 cum of soil will be produced due to advancement of mining faces. About 136m long retaining wall having width 1.0m and height 1.5m will be made along the periphery of waste dump & soil dump. About 132m long retaining wall will be made at the edge of the back filled Pit. The back filling will be undertaken after winning full depth of the mineral & back filling will not be undertaken over the benches in which mineral exist. In this year net production of soapstone will be 20000 tonnes. Working will be undertaken from higher level to lower level. The slope of the benches will be kept 45⁰. The road/ track having width of 3m and gradient of 1:20m will be connected to mine faces. The benches will have slope towards south-east direction. In this year the soil and interburden will be dumped towards the western flank of the area. The mining faces will advance towards SE direction. The benches upto RL 1133 m will be backfilled by end of the year. The position of benches in this year is shown in Plate -6.

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Harish Kainthola मु0ख0/05/खनन/RQP/2015-16 The bench wise recoverable reserves, total excavation of soapstone, saleable quantities and balance recoverable reserves at the end of the year is as below.

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	ch RL m)	Face Length	Face Advance ment		Bench Height	1210000000000000000	ROM Soapstone (Tonne)	Product ion (Toune)	Balance producti on (Tonne)	Soil (cum)	Interbur den (cum)
1133	1127	139.00	13.88	3.00	6.00	11575.92	9569.43	9569.43	.0.00	1929.32	10418.33
1130	1123	132.00	14.09	3.00	7.00	13019.16	11084.88	10430.57	654.31	1859.88	11200.61
		Т	otal			24595.08	20654.31	20000.00	654.31	3789.20	21618.94

Development activities	Coordinates	Khasra No	Name of Owner Owners			
Mining pits I year Pit-I	N 3304762 to N 3304934& E 386874 to E 386851	927, 943, 962, 971, 972, 973, 975, 976, 977, 989, 990, 991, 1049, 1115, 1116, 1117, 1119, 1120, 1121, 1122, 1123, 1120, 1121, 1122, 1123, 1124, 1126, 1127, 1128, 1129, 1130, 1132, 1133, 1134,1137, 1138, 1142, 1144, 1146, 1147, 1150, 1151, 1153, 1154, 1155, 1159, 1164, 1165, 1166, 1168, 1191, 1625, 1626	Guman Singh, Sadho Singh, Keshar Singh, Ram Singh, Dhan Singh, Kundan Lal, Bhupal Singh, Balwant Singh, Bachai Singh, Rauli, Prem Singh, Jagdish Singh			
Soil Dump N 3304871 to N I Year 3304892 & E 386757 to E 386777		869, 870, 871, 1001, 1002, 1003, 1004	Jogaram, Government Land			
Interburden Dump I year	Interburden N 3304862 to N 871, 999, 1000,1001, 1002, 1003, 1004 Jump 3304888 & E		Jogaram, Government Land			
Plantation I year	N 3304812 to N 3304934 & E 386844 to E 386894	963,1142,1143,1154,1156,1161,1162,1163, 1165,1166,1482,1484,1489,1496,1502	Guman Singh, Bachai Singh, Keshar Singh, Balwant Singh, Ram Singh,Government Land, Bhupal Singh Rauli, Dhan Singh			

II Year (2022 - 2023): Pit -1

In this year 0.479 ha area will be mined out from pit-1. About 654.31tonne balance quantity of soapstone from first year will be exploited in this year. Only maintenance of the existing road will be done at this year. About 25913.76 cum of interburden and about 6337.59 cum of soil will be produced due to advancement of mining faces. About 138m long retaining wall having width 1.0m and height 1.5m will be made along the periphery of waste dump & soil

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dump. About 158m long retaining wall will be made at the edge of the back filled pit. The back filling will be undertaken after winning full depth of the mineral & back filling will not be undertaken over the benches in which mineral exist. In this year net production of soapstone will be 24000 tonnes.

Working will be undertaken from higher level to lower level. The slope of the benches will be kept 45°. The road/ track having width of 3m and gradient of 1:20m will be connected to mine faces. The benches will have slope towards south side. In this year the soil and interburden will be dumped towards the western flank of the area. The mining faces will advance towards SSE direction. The benches upto RL 1130 m will be backfilled by end of the year. The position of benches in this year is shown in Plate -7.

The bench wise recoverable reserves, total excavation of soapstone, saleable quantities and balance recoverable reserves at the end of the year is as below.

- 12 ·	n)	Face	Face Advance ment	100000000	Bench Height	Volume (cum)	ROM Soapstone (Tonne)	ion	Balance producti on (Tonne)	Soil (cum)	Interbur den (cum)
1130	1123	132.00	14.09	3.00	7.00	13709.57	654.31	654.31	0.00	0	661.15
1127	1120	135.00	13.70	3.00	7.00	12946.50	11023.02	11023.02	0.00	1849.50	11836.80
1124	1118	158.00	16.01	3.00	6.00	15177.48	12546.72	12322.67	224.05	2529.58	13415.81
	0.50496	3	lotal			41833.55	24224.05	24000.00	224.05	4379.08	25913.76

Development activities	Coordinates	Khasra No	Name of Owner/ Owners	
Mining pits N 3304713 to N 3304900 & E 386774 to E 386881 Pit-1 .		950, 1049, 1113, 1115, 1116, 1117, 1119, 1121, 1122, 1123, 1126, 1128, 1130, 1133, 1134, 1135, 1137, 1138, 1139, 1142, 1143, 1144, 1146, 1147, 1148, 1154, 1157, 1158, 1159, 1160, 1161, 1162, 1168, 1482, 1489, 1600, 1616, 1617, 1618, 1619, 1620, 1621, 1622, 1623, 1624, 1625, 1626, 1627, 1628, 1629, 1630, 1631, 1632, 1633, 1634, 1635, 1642, 1645,	Rauli, Keshar Singh, Ram Singh, Dhan Singh, Kundan Lal, Guman Singh, Bhupal Singh, Balwant Singh, Bacha Singh, Sadho Singh, Rauli, Balwant Singh, Jagdish Singh, Joga Singh	
Soil Dump II year	N 3304888 to N 3304914 & E 386768 to E 386787	869,871,913,916,927,999,1000,1001	Jogaram, Chanchal Singh, Government Land, Guman Singh	
Interburden Dump II year	N 3304884 to N 3304904 & E 386777 to E 386795	871, 913, 916, 917, 990, 992, 998, 999, 1000, 1001	Jogaram, Chanchal Singh, Government Land, Guman Singh, Sadho Singh	
Plantation II year	N 3304712 to N 3304815 & E 386787 to E 386897	1480,1502,1503,1504,1509,1510,15 14,1515,1516,1517,1520,1524,1525, 1526,1527,1528,1531,1533	Keshar Singh, Dhan Singh, Bhupal Singh, Jagdish Singh, Ram Singh, Bhupal Singh	

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III Year (2023 - 2024): Pit - 1

In this year 0.366 ha area will be mined out from Pit-1. About 224.05tonne balance quantity of soapstone from second year will be exploited in this year. Only maintenance of the existing road will be done at this year. About 26294.31cum of interburden and about 7821.32cum of soil will be produced due to advancement of mining faces. About 135m long retaining wall having width 1.0m and height 1.5m will be made along the periphery of waste dump & soil dump. The back filling will be undertaken after winning full depth of the mineral & back filling will not be undertaken over the benches in which mineral exist. In this year net production of soapstone will be 24000 tonnes.

Working will be undertaken from higher level to lower level. The slope of the benches will be kept 45°. The road/ track having width of 3m and gradient of 1:20m will be connected to mine faces. The benches will have slope towards southern side. In this year the soil and interburden will be dumped towards the western flank of the area. The mining faces will advance towards SSE direction. The benches up oRL 1124 will be backfilled by end of the year. The position of benches in this year is shown in Plate -8.

The bench wise recoverable reserves, total excavation of soapstone, saleable quantities and balance recoverable reserves at the end of the year is as below.

	ch RL m)	Face Length	Face Advance ment	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Bench Height	Volume (cum)	ROM Soapstone (Tonne)	Productio n (Tonne)	1.2.1 (2.5.1 - 1.1)	Soil (cum)	Interburd n (cum)
1124	1118	158.00	16.01	3.00	6.00	15177.48	224.05	224.05	0.00	0	239.57
1121	1115	164.00	19.92	3.00	6.00	19601.28	16203.72	16203.72	0.00	3266.88	17641.15
1118	1113	137.00	14.78	3.00	5.00	10124.30	8018.45	7572.23	446.22	2024.86	8413.59
		Т	otal			44903.06	24446.22	24000.00	446.22	5291.74	26294.31

Developmen t activities	Coordinates	Khasra No	Name of Owner/ Owners
Mining pits N 3304703 to N 3304856 III year & E 386822 to E 386896 Pit-1		1121, 1122, 1123, 1139, 1148, 1157, 1158, 1159, 1160, 1161, 1162, 1199, 1482, 1484, 1487, 1488, 1489, 1497, 1593, 1595, 1596, 1597, 1598, 1599, 1600, 1601, 1608, 1615, 1616, 1617, 1618, 1619, 1620, 1621, 1622, 1627, 1628, 1629, 1633, 1634, 1635, 1642, 1644, 1645	Kundan Lal, Balwant Singh, Bhupal Singh, Ram Singh, Rauli, Bachai Singh, Ram Singh, Keshar Singh, Dhan Singh, Jagdish Singh, Joga Singh, Kundan Singh
Soil Dump III year	N 3304914 to N 3304935 & E 386778 to E 386793	916,927,928,934,936,937,943,990, 992	Government Land, Guman Singh, Sadho Singh
Interburden	N 3304905 to N 3304933	920, 927, 934, 937, 943, 944, 982,	Sadho Singh, Guman

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Dump III year	& E 386787 to E 386803	990, 992, 995	Singh, Government Land, Sadho Singh
Plantation III year	N 3304711 to N 3304797 & E 386753 to E 386889	1048,1051,1053,1105,1106,1107,15 77,1569,1588,1604,1607,1609,1614, 1637,1642,1643,1644,1645,1693,16 96,1701,1707,1708,1724,1725,1726	Bachai Singh, Kesha Singh, Ram Singh, Government Land, Kushal Singh, Balwant Singh, Lal Singh, Dhan Singh, kundan Singh, Bhupal Singh, Diwar Singh, kundan Singh Jagdish Singh

IV Year (2024 - 2025): Pit - 2

In this year 0.250 ha area will be mined out from pit-2. About 434 m long road/ track having width of 3.0m and gradient of 1.20 will be made for the transportation of mineral and interburden. Only maintenance of the road will be done in this year. About 24454.03 cum of interburden and about 3394.52 cum of soil will be produced due to advancement of mining faces. About 134m long retaining wall having width 1.0m and height 1.5m will be made along the periphery of waste dump & soil dump. About 227m long retaining wall will be made at the edge of the back filled pit. The back filling will be undertaken after winning full depth of the mineral & back filling will not be undertaken over the benches in which mineral exist. In this year net production of soapstone will be 23000 tonnes.

Working will be undertaken from higher level to lower level. The slope of the benches will be kept 45°. The road/ track having width of 3m and gradient of 1:20m will be connected to mine faces. The benches will have slope towards SSE side. The soil and interburden will be dumped towards NW side of the pit. The mining faces will advance towards south-eastern direction. The benches up oRL 1187 m will be backfilled by end of the year. The position of benches in this year is shown in Plate -9. The bench wise recoverable reserves, total excavation of soapstone, saleable quantities and balance recoverable reserves at the end of the year is as below.

	ch RL m)	Face Length	Face Advance ment	Bench Width	Bench Height	Volume (cum)	ROM Soapstone (Tonne)	Productio	Balance producti on (Tonne)	Soil (cum)	Interburd n (cum)
1187	1179	103.00	4.10	3.00	8.00	3378.40	2939.21	2939.21	0.00	422.30	3125.02
1184	1176	111.00	3.95	3.00	8.00	3507.60	3051.61	3051.61	0.00	438.45	3244.53
1181	1173	110.00	4.00	3.00	8.00	3520.00	3062.40	3062.40	0.00	440.00	3256.00
1178	1170	109.00	4.86	3.00	8.00	4237.92	3686.99	3686.99	0.00	529.74	3920.08
1175	1167	227.00	6.89	3.00	8.00	12512.24	10885.65	10259.79	625.86	1564.03	10908.40
	Total				27156.16	23625.86	23000.00	625.86	3394.52	24454.03	

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Development activities	Coordinates	Khasra No	Name of Owner/ Owners
Mining pits IV year Pit- 2	N 3304981 to N 3305061 & E 386732 to E 386832	253, 255, 256, 272, 273, 274, 275, 276, 308, 309, 899, 900, 901, 902, 903, 904, 905, 906, 925, 945	Dev Ram, Joga Ram, Nandan Singh, Sadho Singh, Guman Singh
Soil Dump IV year	N 3304975 to N 3304996 & E 386780 to E 386806	924,925,926,930,931,934	Guman Singh, Government Land
Interburden Dump IV year	N 3304966 to N 3304988 & E 386786 to E 386811	930, 932, 934, 937, 938,	Guman Singh, Government Land, Sadho Singh
Plantation IV year	N 3304972 to N 3305060 & E 386730 to E 386835	242,252,253,268,271,273,277,278,2 80,281,284,285,286,287,306,307,30 8,309,310,313,873,891,892,895,896	Khal, Rauli, Devram, Jogaram

V Year (2025-2026): Pit -2

In this year 0.281 ha area will be mined out from Pit-2. About 625.86 tonne balance quantity of soapstone from fourth year will be exploited in this year. Only maintenance of the road will be done in this year. About 24319.78 cum of interburden and about 4584.91 cum of soil will be produced due to advancement of mining faces. About 133m long retaining wall having width 1.0m and height 1.5m will be made along the periphery of waste dump & soil dump. The back filling will be undertaken after winning full depth of the mineral & back filling will not be undertaken over the benches in which mineral exist. In this year net production of soapstone will be 23000 tonnes.

Working will be undertaken from higher level to lower level. The slope of the benches will be kept 45°. The road/ track having width of 3m and gradient of 1:20m will be connected to mine faces. The benches will have slope towards southern sides. The soil and interburden will be dumped towards NW side of the pit. The mining faces will advance towards SSE direction. The benches upto RL 1175m will be backfilled by end of the year. The position of benches in this year is shown in Plate -10.

The bench wise recoverable reserves, total excavation of soapstone, saleable quantities and balance recoverable reserves at the end of the year is as below.

1012	ch RL m)	Face Length	Face Advance ment	1.500000	Bench Height	Volume (cum)	ROM Soapstone (Tonne)	Productio n (Tonne)	1994 (1997) (1997)	Soil (cum)	Interburd n (cum)
1175	1167	227.00	6.89	3.00	8.00	12512.24	625.86	625.86	0.00	0	627,17
1172	1164	109.00	6.83	3.00	8.00	5955.76	5181.51	5181.51	0.00	744.47	5509.08
1169	1161	111.00	6.61	3.00	8.00	5869.68	5106.62	5106.62	0.00	733.71	5429.45
1166	1157	115.00	6.43	3.00	9.00	6655.05	5886.02	5886.02	0.00	739,45	6211.38
1163	1154	119.00	6.75	3.00	9.00	7229.25	6393.87	6199.99	193.88	803.25	6542.70
		Т	otal		ine e	38221.98	23193.88	23000.00	193.88	3020.88	24319.78

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Development activities	Coordinates	Khasra No	Name of Owner/ Owners
Mining pits V year Pit- 2	N 3304936 to N 3305044 & E 386837 to E 386828	906, 907, 908, 909, 910, 911, 912, 914, 915, 917, 918, 919, 920, 922, 923, 924, 932, 933	Dev Ram, Sadho Singh, Joga Ram, Chanchal Singh, Guman Singh
Soil Dump V year	N 3304988 to N 3305010 & E 386800 to E 386825	930,931,933,934,940,941	Guman Singh, Sadho Singh
Interburden Dump V year	N 3304980 to N 3305002 & E 386806 to E 386831	934, 938, 946, 990, 994	Guman Singh, Sadho Singh, Government Land
Plantation V year	N 3304934 to N 3305061 &E 386833 to E 386847	252,900,901,902,904,905,918, 920,921,923,924,933,939,935,94 0,941,942,943,946,948,950,951, 953,956,957,959,960,961,962	Rauli, Devram, Sadho Singh, Guman Singh

6.2 Plans and Sections

All plan and sections of working Pits from I to V year are shown in Plates - 6 to 10. Retaining wall will be made around the periphery of the non mining area to protect the slopes. About 193 m long retaining wall will be made along nala, dumping area, along benches and unstable slopes around non mining if any.

6.3 Blasting:

In the leasehold area since the soapstone is bedded, jointed and fractured in nature, soft minerals, its hardness has been considered as 1 on moh's hardness scale. It can be easily mined. Mostly nature of the overburden is silty clayey soil embedded with dolomite & magnesite boulders upto 1m size generally. Therefore blasting may not be needed both in soapstone as well as in overburden.

6.4 Mine Drainage:

The deposit is situated in the Lesser Himalayan region and has a moderate rainfall. The highest is about RL 1210.4m on the north flank of the area, while the lowest RL recorded on the south flank of the area is about RL1102.1m and a general slope of 30⁰ is from North to south direction. Water table in this area is very deep ranging from 75 to 90m. No water problem is envisaged in the working pits since the rain water will be coursed through the garland drain to be provided on the upper side of the lease area and drainage on the benches provided on the hillside by slight slopping the benches. The only source of the water shall be the rain water which shall flow along the natural slopes. The lessee has provided five check dams to course the water and control the flow of the scree material into the Nala. The check dams have been proposed to restrict scree material from going to Nala to check further water pollution. There are no water bodies within the lease area.





During first five years, the mine working will be confined in crop/ nap land/civil land of the leasehold area. Water table will not be interfered by the mining operations. Therefore no proposal has been given for disposal of mine water finally discharged

a) Minimum and maximum depth of water table based on observations from nearby wells and water bodies

One perennial spring exists outside the lease area in village Karuli. Practically there is no fluctuation in water table throughout the year.

b) Indicate maximum and minimum depth of Workings.

The proposed bottom level of working pit is expected in pit 1 up to 1130m RL in 1 year, 1124m RL in II year, 1118m RL in III year and in pit 2 up to 1175m RL in IV year and 1163m RL in V year and water table will not be intersected by mining operations as spring more than 500m away from the proposed working area. The seasonal drainage exists at center at outside the area. Proposed mining area is far away from existing drainage, therefore chances to encounter the water within the working pit shall be nil during next five years.

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

Mine working will not go beyond up to 1118m RL depth in Pit 1 and up to 1163m RL depth in Pit 2 and during five years depth shall be 9m, thus there is no chance to encounter the water table.

c) Describe regional and local drainage pattern. Also indicate annual rain fall, catchments area, and likely quantity of rain water to flow through the lease area, arrangement for arresting solid wash off etc.

Three seasonal drainage flows with in the area & the proposed side of mine workings are far away from the perennial drainage, therefore there will be no chances to encounter the water within the working pits during next five years. Before the commencement of rainy season, all the mined out pit shall be prematurely backfilled so chances of accumulation of rainy water in the mining pit shall be nil during next five years.

6.5 Disposal of waste:

The top soil will be removed with the help of JCB machine, dozer, shovels, pickaxe, spade & crowbar and stacked separately. The soil intermixed with fragments and interburden rejects are low grade magnesite. Part of these rejects will be utilized in construction and maintenance of retaining walls, parapet walls, check dams and other construction works. About 1265.00 cum of interburden will be used for this task, and remaining interburden about 121335.82 cum will be backfilled.

The quantity of top soil & overburden (Rejects/Waste) to be generated in each year is given below:

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Year	Top Soil (cum)	Interburden (cum)	Mineral Rejects (cum)
I.	3789.20	21618.94	25408.14
Ш	4379.08	25913.76	30292.84
Ш	5291.74	26294.31	31586.05
IV	3394.52	24454.03	27848.55
V	3020.88	24319.78	27340.66
Total	19875.42	122600.82	142476.24

The site for dumping the waste has been selected keeping in mined the ultimate pit limit, proximity to roads and lead from working benches. The proposed dump yards have adequate capacity to accommodate the waste production without rehandling except backfilling. Drainage from the dumps remain natural i.e., water shall be passed under the solid dumps. The built up of waste has been shown on the yearly mining plan and section. The top soil and interburden dump are temporary in nature & when pit will reach the economical depth; all the remaining quantities will be used in backfilling to restore the maximum topography of the area. The location of top soil stack and interburden dump are shown in Plate -6 to 10.

6.6 Storage and prevention of top soil:

The soil will be removed with the help of JCB machine, dozer, shovels, pickaxe, spade & crowbar and loaded manually to stack on the dump yard. Stacking will commence at RL 1123m to RL 1133m in first year, RL 1118 to RL 1130m in second year, RL 1113 to RL 1124 in third year, RL 1165 to 1187m in fourth year & RL 1154 to 1175m in fifth year. The spread of stacks will be undertaken through mechanically and manually both & average dump height kept 1.5m. In first year 240 m² areas was carmarked for stacking of soil with 1.5m height. In second year it is 260 m² areas. Similarly in third, fourth & in fifth year 250 m², 270 m² and 230 m² area have been respectively earmarked for stacking of soil with 1.5m average height. The year wise spread of stack is given below:

Soil stack	Iyear	II year	III year	IV year	V year
Length	24m	26m	25m	27m	24m
Width	10m	10m	10m	10m	10m
Average height	1.5m	1.5m	1.5m	1.5m	1.5m
Angle of repose	36 ⁰	360	36 ⁰	360	36 ⁰

6.7 Proposal for reclamation of land affected by mining activities:

The mining will commence from the higher levels and will advance towards lower levels. Intermittent backfilling will commence from the higher levels and subsequently advance towards the lower elevations so that terraced agricultural fields would undertaken in such a manner that original land use will be restored i.e. before the onset of monsoon will be handed over to cultivators for cultivation. The final backfilling will be started once the





ultimate benches are formed and pit reaches the optimum economic depth. The year wise proposal for reclamation is shown in Plate - 6 to 10 enclosed in the Mining Plan.

All recovery of the mineral will be of the saleable grade. The quantum of development and mineral to overburden soil and interburden in the pit is given below:

Year	Overburden soil (cum)	ROM (Tonnes)	Interburden (cum)	Stripping ratio
I	3789.20	20000	21618,94	1:0.78
п	4379.08	24000	25913.76	1:0.79
ш	5291.74	24000	26294.31	1:0.75
IV	3394.52	23000	24454.03	1:0.82
V	3020.88	23000	24319.78	1:0.84
Total	19875.42	114000	122600.82	Training we have

The closure proposals implemented during the first Vth year period are given below:

A. Mines out land	Crop/Nap land (ha)
 a) (i) Area already broken up 	-
(ii) Area already backfilled	•
(iii) Area already reclaimed	
b) (i) Additional area proposed to be broken up during first 5 year	1.829
(ii) Additional area proposed to be backfilled	
(iii) Additional area proposed to be reclaimed	1.829

B. Dump- Soil & Interburden (IB)	Crop/Nap land (ha)
(i) Area occupied by dump	Soil- 0.013 IB- 0.012
(ii) Additional area to be covered by dump	
(iii) Dump area to be covered by protective measures	0.025

C. Plantation	Revenue/Benap land (ha.)	Crop/Nap land (ha)
(i) Area already covered	98	-
 (ii) Area proposed to be covered under plantation in five years 		0.459

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S. No.	Description	Area (ha)	Reclaime d & Rehabilit ated till end of last MP/MS period (ha)	To be Reclaimed & Rehabilitated till the end of present plan/ scheme period (ha)	To be Reclaime d & Rehabil- itated till the end of life of mine (ha)	*To be Reclaime d & Rehabil- itated after end of life of mine (ha)	Remarks Area to be reclaime d by the end of lease (ha)
1	Mining (Quarry)	1.829		1.829	7.841		6.223
2	Waste dump	0.025		0.025			0.025
3	Office infrastructure	0.009		0.009			0.009
4	Processing plant			-			
5	Mineral Stack/Processing yard	0.005	*	0.005			0.005
6	Sub grade mineral stacks			1965			
7	Roads	0.191		0.191			0.764
8	Water course/pond/ reservoir			(1 +2)			*
9	Unutilized area	5.782		5.782			0.811
	Total	7.841		7.841			7.841

Proposed land use (till end of life in ha.)

6.8 Measures for dust suppression:

Soapstone is a talcose rock mineral composed of hydrous magnesium silicate. The specific gravity is around 1. Therefore emissions due to mineral handling during mining operation are not much and restricted to the lease area only. Air pollution is caused mainly due to dust generation added with gaseous emission from transportation activities along with mining operation like evacuation, loading, haulage etc. Proper mitigation measures will be practiced during mining activities to control air pollution load below the prescribed limits. Some measures are as follows:

 Use of Personal Protection Equipments (PPE) like dust masks, ear plugs etc. by the mine workers.

No Blasting will be done.

Regular water sprinkling on haul roads & loading points will be carried out.

Development of green belt/plantation around the lease boundary, roads, dumps etc.

Vehicles carrying mineral will be covered with tarpaulin sheet. This will prevent
dust emission.

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Harish Kainthola मुतख0/05/खनन/RQP/2015-16 The existing kachha foot track shall be converted into cemented foot track. Apart from this water sprinkling on haul roads shall be undertaken during dry spell of months to suppress dust. The soil and interburden to be generated a temporarily in nature and all quantities shall be used in premature backfilling before commencement of monsoon as direction by district administration. After over the monsoon the backfilled material shall be rehandled by means of an excavator and dump over existing dump yard secure with toe walls.

6.9 Measures to minimize vibration due to blast and check noise pollution: Vibration Level (Due to Blasting):

As proposed mining method is opencast and semi mechanised, since mining operations are proposed on a very small scale and excavation activity will be small, without drilling and blasting, hence, there will be no impact on vibration level due to blasting.

Noise Level:

Long term exposure to high noise levels can cause damage to hearing, headache, fatigue and disorders to blood pressure etc. No such disorders have been reported from district Bageshwar mining leases because the exposure to cause of noise is comparatively short and volume of noise is quite low.

The sources of noise are excavation operations and mineral transportation which is limited because of small size of mining operations. To keep the noise level to the minimum, Green Belts shall be provided around the mining area. Opencast mining has been proposed with semi mechanization means. But mining does not include drilling and blasting. Transportation of mineral from mine site to road head will be done manually or with dumper. Hence, noise level due to transportation is negligible.

6.10 Mineral Processing:

Only dressing & breaking is being carried out at pit head to remove waste material. Different grade of mineral & packed in 50kg plastic bags & transported to Haldwani. No Mineral processing to upgrade the mineral shall be carried out.

6.11 Tailing Dam:

No tailing dam is proposed in the soapstone mine.

6.12 Guidelines for scrutiny with respect to mineral beneficiation:

No beneficiation of mineral processing will required for Soapstone mineral. Therefore no such investigations have been conducted.

Except dressing & breaking no beneficiation of mineral processing is required for soapstone mining. The soil coating within soapstone shall be dressed with brush and stacked separately. If any kind of impurities observed within soapstone dumps it shall be broken with hammer, dress manually & stack separately.

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6.13 How many time penalties imposed upon lessee against illegal mining: None

6.14 Employment potential/mine management plan: Employment Potential

The mine manager cum mining engineer should be a graduate mining engineer holding at least second class manager's certificate. The mate-cum-blaster should hold mining mate certificate of competency.

The category-wise employments are given as below:		
Manager certificate from DGMS		1
Skilled		
Supervisor		2
Time Keeper		1
Office Assistant/Dispatch Supervisor		2
Un-skilled		
Daily wages workers		53
Total	:	59

The services of following persons/agencies may be retained on part/full time basis.

- (i) Geologist
- (ii) Mining Engineer
- (iii) Environment consultancy agency
- (iv) Surveyor

The average production envisaged is 22800 tonnes/year which shall be achieved during plan period which implies that 95 tonnes of production per day considering 240 working days in a calendar year.

Due to past mining experience with in lease area, the OMS varies from 1.5 tonnes to 2.0 tonnes. Considering average OMS 1.8 tonnes, this implies that 53 workers shall be employed to achieve the required production.

6.15 Environment management plan:

Land degradation and ecological disturbances generally occurs in open cast mining. In preparation of mining plan for Karuli soapstone mine of Smt. Janki Rathor W/o Shri M. S. Rathor House no. 346/3 Kalawati Colony, Haldwani and Partner M/s Star Mines and minerals House No. 1516, Savitri Colony, Haldwani, Distt. Nainital. emphasis on environmental protection has been given to minimize the adverse impact on the present environmental status. Opencast method of mining causes some land degradation and disturbs the ecology of the area. While preparing the Environment Management Plan emphasis has been laid on restoring the ecology of the area as much as is possible. This has been made possible by planning the mine workings in the most systematic, safe and scientific manner with due regard to conservation of mineral.

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Land use

The collection of baseline data has been carried out from buffer zone and core zone, which includes an area of about 5 km in surrounding the lease area and an area of 500 m surrounding the lease area respectively (Plate No. 2 & 12). Normally in hills the geographical distances become meaningless as one side of the hill has hardly any connection with another side, although separated by a small plan distance. In fact the Core Zone area could be confined to the lease area which may be affected by mining and may have close relationship with reference to socio-economic impact of the area. An electric line with electric pole is passing within the lease area hence due care & mining activity should be restricted around the periphery of electric pole should be taken during the exploitation of the mineral.

Existing land use pattern indicating the area already degraded due to quarrying/pitting, dumping, roads, processing plant, workshop, township etc. in a tabular form is given below:

Name of Land use	Forest Land (ha)	Crop Land (ha)	Grazing Land (ha)	Waste Land (ha)	Revenue Land (ha)	Total (ha)	Indicate land required outside applied area (ha)
(a) Pit & Quarries	- E	1.829			-	1.829	-
(b) Dumps of ore waste & Overburden	•	0.025				0.025	
(c) Mineral stack	-	0.005	0.20		1.00	0.005	-
(d) Infrastructure including of office, workshop, plants & road	5	0.200	*	÷		0.200	-
(e) Township	•	0.76			(14)		
(f) others (i) Barren land (ii) Crop land	8	5.782				5.782	
Total area	76	7.841	-	-		7.841	2(+)
(g) Area backfilled by mine owners		1.829	1 6 0	20	180	1.829	
(h) Area afforested by mine owners	3 7 3	-	đ	8	0.459	0.459	(9)

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Water regime:

The ground water table in this hilly region is very deep and hence ground water is not interfered in opencast mining. There are seasonal tributaries or stream outside the leasehold area; however, rain water flows down to western slopes towards the valley causing no problem to the habitat.

No old pits show any confined water body. The general surface drainage is controlled by the slope in the area and there is no drainage exists in the leasehold area. Water pollution can result from natural runoff, dissolved chemicals in water that percolates through the soil and human sources, such as agriculture, mining industry, construction, homes and industry. The applied area is basically agriculture/ nap land. There are no specific trees grows within the said area. Very sparsely occurring trees are seen here and there. These are like Tun and Pine, etc. Scattered patches of grass generally Kumaria, Dub etc. are also occupied in the area.

Flora: The area is basically used for agricultural regime. It is therefore devoid of trees concentration zone. Some trees are generally present on shrub or grazing Land. All the mining activities, in future will be mainly concentrated on cultivated fields having sparsely scattered trees. The mining will be performed with semi mechanisation without drilling and blasting, so the existing tree will not be disturbed.

Shrubs: Ghingaru with a few Jhitalu, Kilmora and Hisalu etc. occurs in the depressions.

Grasses: Kumaria, Doob, Shishoona, Gria and Bhawaria.

Fauna: The types of fauna consist of snakes, rabbits, wild cats, fowls and jackals etc found in and around area. Ghoral (A goat like stocky animal), Kakar (barking deer), hares. Stag & Bhalu, black hill partridges, chakor and wild fowls are sometimes sighted in the buffer zone. There is no trace of any major wild life in the area. Domestic animal like cows, buffaloes, goats, ponies etc. are seen in areas close to the villages. Quality of air, ambient noise level and water

Ambient air

Anthropogenic sources of air pollution due to mining are divided into two categories:

- (i) Mobile sources which include automobiles, transport trucks etc.: strictly speaking there will no mobile sources (e.g. trucks etc) of pollution with applied area.
- (ii) Stationary sources which include open cast semi-mechanised mining, loading and unloading points, blasting sites, crushing and grinding units of ore, beneficiation plants and power generation plants attached to mines. Here, stationary sources of pollutant include mineral mining, loading/unloading of minerals from pits to dumps etc, and road/ tracks. Dust particles will be the main aberrant sources of pollution of any atmosphere because it is a semi mechanised mining operation. Once the pollutant enters the atmosphere, many interactions occur. Winds then act to transport the pollutants or promote additional mixing.

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Most of the pollutants in the ambient air are the fines suspended particles and gases that cannot be seen.

Since the applied area is in remote hilly Lesser Himalayan region without any industry/mechanized operations around and the nearest existing mining block is more than 500m away from nearest road head, the SPM value in the air quality will not exceeded the permissible threshold value. Infect it may much below presently. The small proposed manual mining operation will not cause any significant pollution factor.

Quality of air, ambient noise level and water:

The water for drinking purpose comes from springs or naula. Water quality of nala will not deteriorate as mine working is proposed to be restricted in one pit only. The backfilling and retaining wall at the edge the of reclaim pits will also remote the chances of fine particles to be mix with the nala water.

Climatic Condition:

i) Temperature:

Climatically the area falls in temperate zones with pleasant summer and extremely cold in winters. The area receives moderate snowfalls during winters between Decembers to February. The maximum temperature goes upto 35° to 36°C while the average minimum temperature goes above upto 2° C to 4° C in the months of January & February.

ii) Relative Humidity:

The relative humidity shows rise from June to February with highest values in the month of January and decreases it reaches lowest during April and May.

On the basis of past experience reveals that the maximum average humidity in the month of January is about 92.30% while the minimum average humidity is about 36.30% during month of April.

iii) Rainfall:

The area receives 70% on an average rainfall in between June end to mid September. Average rainfall from June to September comes about 140mm. The maximum rainfall was received 1120mm, during the month of July & August while the minimum rainfall was recorded will during the months of January & February & it varies 10mm to 15mm.

Human settlements:

Distribution of human settlements is shown on flanks of buffer zone of lease hold area in Key Plan. The people are Kumauni's in surrounding area and their general occupation is seasonal agriculture growing crops of wheat, rice, soyabean, urad, bhang etc. They also make baskets, chatai, rope etc from the fibres of bhang. There is no industry in and around the area. People are dependent on local agriculture product and import other needs from outside which is brought through mules. Any venture such as soapstone mine will provide the local people considerable relief through employment, better transport facilities for

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(NK) Harish Kainthola मुतरव0/05/खनन/RQP/2015-16 material on returning mules after unloading soapstone and help them to improve the lifestyle.

Public buildings, places of worship and monuments

No public building, places of workshop & any bind of Historical monuments exists within the lease area.

- Indicate any sanctuary is located in the vicinity of leasehold

The lease area does not fall under notified area under water (Prevention & control of Pollution), Act 1974. Further there is not any National park/ Sanctuary with in 10km radius of lease area.

Impact Assessment: Attach an Environmental Impact Assessment Statement describing the impact of mining and beneficiation on environment on the following:

Land area indicating the area likely to be degraded due to quarrying, dumping, roads, workshop, processing plant, tailing pond/dam, township etc.

The impact on land form or physiography will be land use on the hilly terrain will undergo radical changes due to the open cast mining.

During five years mining, 1.829 ha land will be degraded due to mining & allied activities.

The breakup of the land to be affected during the five years and end of conceptual period of due to mining operation is given below:

End of 5 years (ha.)	Area occupied (Ha) End of conceptual period
1.829	6.223
0.012	0.012
0.013	0.013
0.191	0.764
Nil	Nil
0.002	0.01
2.045	7.022
	1.829 0.012 0.013 0.191 Nil 0.002

ii) Air quality:

It is proposed that mining shall be carried out opencast semi-mechanized. Mineral shall be filled into 50 kg plastic bags & manually transported to road side. Excavator shall be deployed as & when required & its deployment shall be 4-5 hours 3-4 days in a week. Due to limited movement of an excavator, small quantities of air borne dust shall be generated & it shall be suppressed due to water sprinkling on haul roads. However water sprinkling on the foot track shall be carried out during summer month to suppress the dust. However in future air monitoring shall be carried out as per CCOM Circular. 3/92. No air quality shall be deteriorated due to mining activities.

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iii) Water quality:

The surface drainage system in the area is almost seasonal. The flow in the natural drain is observed only immediately after the rainfall and then these nala become entirely dry. Drinking water quality will not deteriorate by mining and allied activities. However the drinking water can be tapped suitably upstream of the mine area and brought by pipes for use. The drinking water in the mine area and near the habitation will thus be solved.

The runoff is that part of rainfall which does not infiltrate the soil cover completely and flows over the soil surface to natural drains existing in the area. Some water of rain easily enters the soil surface and the get stored in pores of the soil, rest remaining the runoff. The impact on water quality will be confined to increased suspended solids during rain. The perennial drainage exists toward southern flank of the area from flows north to south direction. 5 check dams having dimension of 8m to 14m x 2.0m x 1.0m shall be erected across the drainage to control siltation during rainy seasons.

iv) Literacy:

The literates show a vide fluctuation in their numbers. However, the literacy is less in case of females.

v) Occupation:

Agriculture is the main occupation in this area. Study reveals that within 5km radius of lease area, 70% to 80% population is engaged in the agriculture. Percentage of females engaged in agriculture is higher than that of males.

Disparity of agricultural land holding is less. Yield of agriculture produce is very poor to sustain the available heads. Consequently problem of unemployment and frustration amongst the youth can be noticed in the area.

vi) Cropping pattern:

Maize is grown at higher altitudes along northern slope of hills, whereas paddy cultivation is practiced in the low lying areas, where water is available in abundance. Wheat is also grown in the area and yield of wheat is rather sufficient.

vii) Noise levels:

The mining does not include even drilling and blasting. Transportation from mine site to road head will be done by manually or by mules. The road is inside the proposed working site. Hence, noise level due to transportation may occur.

viii) Vibration levels (due to blasting):

As proposed mining method is opencast mechanized without drilling and blasting, hence, impact on this aspect will be insignificant.

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ix) Water regime:

Surface Water:

The topography of the area will not be largely changed in view of the proposed concurrent reclamation. During the mining activity period, there is a possibility of mixing of freshly disturbed material with the rain water. To take care of such happenings, retaining walls have been provided along the backfilled pits and toe walls along the soil and interburden dumps.

Ground Water:

The water table in hills is usually very deep and does not have any relevance with mining activities. However, concurrent restoration to original topography & it will not be disturbing the ground water.

Programme of Afforestation:

During next five years plantation shall be carried out over with in 7.5m barrier zone of the lease area.

i) Conservation

Stabilising and revegetation the de-vegetated areas viz. debris, dumps and slopes which get degraded due to rolling stones, etc. are important for conservation of soil, regulation of surface and underground water and for rehabilitation of wild -life habitat. These generally are extracting operations and need planting in various phases by select species. Protective engineering measures, in conjunction, become necessary.

ii) Aesthetics

Mining operations open ugly sights of dug-out slopes and rolled debris, which in the hills are visible from long distances. It is desirable to screen away such sights so that inevitable unpleasantness of the mining operations is not exposed to public eyes. Well planned plantation of ornamental or fruit trees improved the aesthetic value of the land.

iii) Production

Trees and shrubs produce timber, fodder, fuel, fruits, fibres, etc. for direct use of village community. In the area several useful varieties of fruit trees and shrubs can be grown. Examples are: peach (Khubani), Peas (Nashpati), Apricot (Aaru), Plum, Kaphal, etc. among trees and Hisalu and Kilmora amongst shrubs. Initially, few colonisers such as Chilmora (Rumexhastatus) and few local grasses will be planted to initiate biological activities in the land. Ultimately, the reclaimed land will be again used for agriculture.Based on the above consideration and Mining plans, the following afforestation programme has been worked out:

a) Mining Benches:

The mining is confined to the agricultural land. The mining benches will be back-filled so that mined out area shall be retained to its maximum original topography. Therefore, no





efforts for afforestation on the mining benches would be done as the land will be used for agriculture, purpose. Besides this individual land owner will not allow plantation in their respective lands are it causes hindrance in agriculture.

b) Dump Areas:

The dumps are temporary structures. They would ultimately be used for back-filling and, therefore, will gradually be removed in due course of time; hence, no afforestation would be undertaken over dumps.

c) With in the area:

7.5m barrier zone is available for plantation therefore plantation shall be carried out over it. The lessee planted native species for plantation.

Technique of Plantation:

a) As quick closing of canopy is necessary, the spacing adopted should be 3m x 3m.

b) Soil working:

75 cm x 75 cm pits should be dug in March April. Overburden soil and well rotten farmyard manure (5Kg per pit) should be mixed well with the dugout soil and refilled by the third week of June. The level of refilled soil should be about 15 cm above the general ground level. Care should be taken to ensure that the rock at the bottom of the pit should be thoroughly cracked to ensure easy penetration of roots of the seedlings.

c) Planting:

Only strong healthy nursery raised plants should be used to ensure success. The saplings should be dug out from the nursery with sufficient earth around the roots. The earth should be filed with grass. Plants raised in the polythene container are best. Transport to the site should be done in baskets to avoid damage of the roots. Damaged plants should be sorted out.

d) Fertilizer and Insecticides:

Chemical fertilizer at a rate of 15 gm per plant should be added at the time of planting NPK. mixture is sufficient to promote growth.

Plantation during next five years shall be undertaken over the 7.5m barrier zone.

About 10 gm of insecticide, B.H.C. 10 percent, should be sprinkled on the sides and base of the pit to prevent damage by insect larvae. Another 10 gm of insecticide should be mixed with the soil before refilling.

c) Trees:

Peach (Khumani), Pears (Nashpati), Apricot (Aaru), Faliyat, Surai etc.

Shrubs: n.

Kilmora, Hisalu, etc.

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boundary ar	1244000004-00080-000	in between lease ary and UPL	Plantation in Van Panchayat	Total no. of sapling	
	No. of saplings	and forest land			
2020-21	0.043	43	172	215	
2021-22	0.065	65	260	325	
2022-23	0.177	177	708	885	
2023-24	0.135	135	540	675	
2024-25	0.039	39	156	195	
Total	0.459	459	1836	2295	

The year wise plantation is given below:

The year wise plantation schedule is shown in Plate No. 6 to 11. Total 459 sapling will be done in UPL & 1836 sapling in Van Panchayat and forest land after taking due permission from concerning authority.

Post Plantation Care:

This will include the following measures:

- Protection from grazing and fire.
- Watering at least once a week during dry spells.
- Manuring
- Weeding six times in the first year and twice a year, during the subsequent two
 years and soil working.
- Replacement of causalities.
- Protection from pests.
- This post plantation care will be undertaken at least for five years after the plantation.

Treatment and disposal of water from mine:

Mining activities will not touch the water table. However due to intermittent rainy shower, some quantities of water will accumulate in the pit & it will be pumped out and channelize through the slopes.

No toxic elements will be preserved in the water hence treatment of water is not required.

Measures for mining adverse effects on water regime:

The mining has been proposed in such a way that there will be no adverse effect on water regime. Toe walls will be provided along the backfilled pits. This will prevent escaping of fine material along with the rain.

Protective measures for ground vibration/air blast caused by blasting:

As the proposed method of mining is open cast mechanized without drilling and blasting, the impact on this aspect is negligible.

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Measure for protecting historical Monuments and for rehabilitation of human settlement likely to be disturbed due to mining activity:

No such feature exists within the mining would be confined to the agricultural land which is far away from the villages. Due to non drilling and blasting there is no adverse effect on this account.

Socioeconomic beneficiate out of mining:

The scale of operation is limited with 90% local employment. Hence some benefit to the local community will occur on this aspect. Besides the direct and indirect employment, better communication will also add to the positive contribution.

Proposed mine working is in agricultural land and residential area is far away, therefore, no impact of mining on human settlement shall be arising.

7.0 NOC from land over should be provided along with Khasra map for the area where mining proposed for five years.

NOC has already been taken from landowner (Annexure-5)

KAILASH CHANDRA ROP/UKGMU/No.012/YEAR2019

Harish Kainthola HOGO/05/EFT/ROP/2015-16

KARULI SOAPSTONE MINE

Village – Karuli, Tehsil & District- Bageshwar, (Uttarakhand) Smt. Janki Rathor w/o Shri M. S. Rathor, House no. 346/3 Kalawati Colony, Haldwani and Partner M/s Star Mines and minerals House No. 1516, Savitri Colony, Haldwani, Distt, Nainital

Ref. No.

Date-

CONCENT LETTER/UNDERTAKING/CERTIFICATE FROM THE LESSEE

Mining plan in respect of Karuli Soapstone Mine over an area of 19.879 ha out of 28.264 ha (demarcated area- 7.841ha) in village Karuli, Tehsil & District-Bageshwar, (Uttarakhand) for LOI No. 1130/VII-A-1/2020/01(4)/20 Dehradun, was obtained on dated 20.11.2020 for a period of 50 years has been prepared by RQP (Shri Harish Kainthola & Shri Kailash Chandra).

This is to request the Director, Geology and Mining Department, Uttarakhand Dehradun to make any further correspondence regarding any correction of the Mining plan with the said recognized person as his address below:

 Address of RQP
 : 3/1, Ekta Enclave, Near Hotel Sun Park, GMS Road, Dehradun (U.K).

 Phone No
 : 09412028745

E mail : Kaingeotech2147@rediffmail.com,

We, hereby undertake that all modifications/updating as made in said mining plan by the said recognized person be deemed to have been with all our knowledge and consent and shall be acceptable on us and binding in all respects.

It is certified that Mining Plan with Progressive Mine Closure Plan Karuli Soapstone Mine) of Plan Karuli Soapstone Mine of Smt. Janki Rathor W/o Shri M. S. Rathor House no. 346/3 Kalawati Colony, Haldwani and Partner M/s Star Mines and minerals House No. 1516, Savitri Colony, Haldwani, Distt. Nainital over an area of 7.8410ha complies with all statutory rules, regulations, orders made by Central or State Govt., statutory organization, Court etc. which have been taken into consideration & wherever any specific permission is required the lessee will approach the concern authorities.

The information furnished in the mining plan with Progressive Mine Closure Plan is true & correct to the best of my knowledge and records.

"The Provision of Mines, Act, Rules and Regulations made there under have been observed in the mining plan over a demarcated area of 7.8410 hectares in Bageshwar district in Uttrakhand state belonging to Karuli Soapstone Mine, and where specific permissions are required, the lessee will approach the D.G.M.S. Further, standards prescribed by D.G.M.S. in respect of miners' health will be strictly implemented".

I authorize RQP Shri Harish Kainthola & Shri Kailash Chandra to submit mining plan for approval and collect the approved copy of mining plan on my behalf

Place : Bageshwar

Sign of Lessee:

Date :

(Karuli Soapstone Mines)

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(Engineering Geological - Gestechnical Solutions & Consultancy in Underground & Surface Encontion, Dama, Stope Stability, Remote Sensing OS, Site Islantification, Frankhildy Insettigation, DFR, Mining Plan, Environment Clearance, Rock & Soil Testing, Hydrology, Surwying.)

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Ref: KGT-L-/228/DDN2021-22

Date: 23/04/2021

CERTIFICATE FROM ROP

The provisions of the Uttarakhand Minor Mineral Concession Rule, 2001 have been observed in the preparation of the Mining Plan for Karuli Soapstone Mine over an area of 19.879 ha out of 28.264 ha (demarcated area- 35.080ha) of of Smt. Janki Rathor W/o Shri M. S. Rathor House no. 346/3 Kalawati Colony, Haldwani and Partner M/s Star Mines and Minerals House No. 1516, Savitri Colony, Haldwani, Distt. Nainital has got LOI No. 1130/VII-A-1/2020/01(4)/20 Dehradun, was obtained on dated 20.11.2020 in village– Karuli, Tehsil & District- Bageshwar, (Uttarakhand) and whenever specific permission are required, the lessee will approach the concerned authorities of Director, Geology and Mining Department, Dehradun.

The information furnished in the Mining plan is true and correct the best of our knowledge.

(Kailash Chandra) ROP RQP/UKGMU/NO 012/Year 2019

(Harish Kainthola) ROP मृ0ख0/05/खनन/RQP/2015-16

Date: 23/14/201.

Place: Dehradun

3/1 Ekta Enclave, Way to Scomadwar - ITBP, (Opposite Hotel Sim Park Inn), GMS Road, Dehradun-248001, Uttarakhund

PROGRESSIVE MINE CLOSURE PLAN (PMCP)

1,	INTRODUCTION	
20		

Name of Lessee & Address:

Smt. Janki Rathor W/o Shri M. S. Rathor House no. 346/3 Kalawati Colony, Haldwani and Partner M/s Star Mines and minerals House No. 1516, Savitri Colony, Haldwani, Distt. Nainital. Mobile No-8476037777, Email Address –

Location:

The area is located on Survey of India Toposheet No. – 53 O/13 in latitude $29^{\circ}52'2.81$ "N to $29^{\circ}52'15.56$ "N and longitude $79^{\circ}49'37.59$ "E to $79^{\circ}49'50.57$ "E. The applied area is occupied by single block and is bounded by I, 2, 3, 4, 5, 6, 7, 8 & 9 boundaries pillars. Coordinates of pillars are shown in Surface plan (Plate No. – 3)

Extent of Lease area: Type of lease area:

Present land use pattern:

19.879 ha out of 28.264 ha. Demarcated area -7.841 ha 19.879 ha out of 28.264 ha. Demarcated area -7.841 ha. falls in *nap*/agricultural.

The existing land use is agricultural/nap/civil land and is given below:

Forest		Non-Forest	1
17			Area (ha)
Forest None (specify)	 Category 1(本) Jotdar land State Govt/ Civil. Land 	6.584	
		a) Land under Category 7(市) b) Category 9(3)录	0.425 0.658
		 3. Land for public use a) Land under Category 10(1) 	0.157
		b) Land under Category 10(2)	0.017
	-	Total	7,841

- 1.1 Reasons for closer: Preparation of progressive mine closure plan has become mandatory and is being submitted under Rule 34(4) of Uttarakhand Minor Mineral Concession Rule, 2001.
- 1.2 Statutory obligation: As per rule for every fresh grant of mining lease, a progressive mine closure plan is required to be submitted and the progressive mine closure plan is being submitted in accordance with the guide lines issued by Office Order no. 1762 / জনন/ गोण ত্তনিজ-मাইনিয়াল/26/ মুচত্তনিতিই0/2015-16 dated 31 October 2015.

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1.3 Closer plan preparation

- a) Name and Address of the applicant:
 - Smt. Janki Rathor w/o Shri M. S. Rathor House no. 346/3 Kalawati Colony, Haldwani and Partner M/s Star Mines and Minerals House No. 1516, Savitri Colony, Haldwani, Distt. Nainital. Mobile No. - 8476037777, Email Address-
- b) Name, address and :

Shri Harish Kainthola, KainGeotech 3/1 Ekta Enclave Way to Seemadwar- ITBP, Opposite Hotel Sun Park Inn, GMS Raod, Dehradun - 248001 (Uttarakhand) Telephone (Cell): 08077856332. Dehra Dun- 248008 (Uttarakhand) E-mail- Kain_geotech2147@rediffmail.com, hkainthola@gmail.com Mobile No. - 09412028745, 09412058990 (Office)

Registration No. - मु0ख0/05/खनन/RQP/2015-16 RQP/DDN/141/2002-A

Kailash Chandra, 3/1 Ekta Enclave Way to Seemadwar- ITBP, Opposite Hotel Sun Park Inn, GMS Raod, Dehradun - 248001 (Uttarakhand) Telephone (Cell): 08755182584. E-mail – ksati84@gmail.com Registration No. - RQP/UKGMU/NO 012/Year 2019)

c) Name of the executing agency: Star Mines and Minerals, (Smt. Janki Rathor w/o Shri M. S. Rathor House no. 346/3 Kalawati Colony, Haldwani and Partner M/s Star Mines and Minerals House No. 1516, Savitri Colony, Haldwani, Distt. Nainital.

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2. Mine description:

2.1 Geology:

The applied area and its surroundings are constituted in part, by Gangolihat Magnesite sequence. The local lithological sequence is as follows:

- Upper Carbonates
- Middle Talcose Phyllite
- Lower Carbonates

In the applied area and its surrounding consists of Gangolihat magnesite. This rock unit contains magnesite, talcose phyllite and talc lenses etc.

The Upper Carbonates Zone contains magnesite and sporadic magnesite, the Middle Talcose Phyllite Zone contains the talc in pockets and lenses, whereas the Lower Carbonate Zone contains magnesite intercalated with phyllite/ talcose phyllite. Pockets/ lenses or veins of soapstone also occur within carbonates of Gangolihat Magnesite.

The applied area lies in the village Khuldoari Baldoari which is located almost on southwestern sloping part of small hill. Both overburden and outcrops of soapstone are present in exploratory opening, magnesite boulders occur on the surface as well as intermixed with soapstone in the applied area. The lithounits found in the project area are:

Overburden: Almost whole block of the applied area is covered with overburden material. This overburden comprises grey to brown to dark brown, fine to medium grained siltyclayey soil. Small fragments of soapstone and magnesite are also present in this soil. Thickness of this overburden varies from 0.9 to 1.5 m.

Soapstone and magnesite: Intermixing of soapstone [Mg₃Si₄O₁₀(OH)₂] with magnesite occur below the soil cover. Mostly this soapstone or tale is highly prone to easy weathering and erosion due to its softness and thus its outcrops are rare. In shallow depth soapstone is massive to highly bedding and shows brightness/whiteness characteristic which generally varies from medium to high. At places tale pockets are crushed and crumbled due to association with shear zones present in the area. In the applied area soapstone is fine grained, off-white to white, foliated and sometimes powdery due to crushing. In specimens or fragments it shows flexibility in edges due to thinness and trimming. Overburden comprises magnesite boulders intermixed with soapstone. This intermixed magnesite boulders in soapstone are about 60%.

Structural features

The regional and local structural features as could be deciphered in the applied block are as follows:

The algal stromatolites are absent in this area. Regionally they have been reported to be significant in interpreting reversal of Upper and Lower Carbonate dispositions.

(i) The typical bedding dip/ strike are not seen within the applied area, not even clear cut carbonate bands are exposed presently.

(ii) The cleavage/ foliation/ banding attitudes of soapstone/ talcosephyllite units vary as follows:

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General Strike	Dip Amount	Dip Direction	Attitudes
N245° to N 275°	300 - 350	N 155°- N 185°	Bedding
N240° to N 250°	400 - 500	N 150°- N 160°	Bedding
N 030° to N 050°	50° - 80°	N 140° to N 160°	Joint
N 050° to N 340°	60 ⁰ - 75 ⁰	N 320° to N 070°	Joint
N 80° to N 110°	40° - 55°	N 200° to N 170 ^e	Joint

The rocks found in the area in general seems to have undergone the more than one phases of tectonic activity. The upper and lower carbonates zones of Gangolihat Magnesite seem to be inverted. Rocks/ minerals in the area are crushed and sheared. Local trend of magnesite outcrops and talc pockets show the dip towards valley side i.e. towards southern side. The bedding plane dips towards SSE and SE direction with amount of 30° to 50°. General strike direction varies towards N240° to N275°.

Topography:

This area lies on southern slope of a hill in a mountainous terrain of rough and rugged topography. The adjacent area is drained by three seasonal Rollis/Nalas. The applied area forms a transverse ridge of ending southern slope in the valley. The area has sloppy undulating surface and at places flat gentle sloping cultivated land also. The highest RL is about 1210.4m on the northern side of the applied area, while the lowest RL recorded on the southern side of the applied area is about 1102.1m. General slope of the lease area is 10° - 30° in southern direction.

The surface plan showing topographical features is given in Plate No. 3.

(i) Regional Geology

The area forms the part of Calc zone of Tejam and Pithoragarh. According to Prof. K.S. Valdiya (Geology of Lesser Himalaya, 1980) and D. K. Banerjee et. al. (Him. Geol., Vol. 5, 1975) the lithostratigraphic sequence of this area is as follow:

Group/ Formation	Lithology						
Berinag Formation	Quartzite, Meta quartzite, Conglomerate, Phyllite						
	Magnesite, dolomitic soapstone with algal structures. phyllite intercalations						

Sor Slate

Pithoragarh Formation

Slate, Phyllite, subgrawake

-Unconformity-----

In this region, rocks of Pithoragarh Formation occur. The development of algal stromatolite in carbonates occurrence or magnesite is a common associate of the carbonates. The Calc-Zone rock units are well known for their structural dispositions (windows, half windows in Lesser Kumaon Himalaya) for stromatolites and minerals (magnesite, soapstone and minor metallic occurrences). The above sequence as observed in this region is considered to be an inverted one. Soapstone pocket occur within carbonates of Gangolihat Dolomite.

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(ii) Local Geology:

Alluvial Cover:

A thin layer of brownish colour of soil exists in the whole area. The thickness of soil varies from 0.40 m, to 0.60 m, having an average thickness of 0.50m.

Soapstone bearing with low grade Magnesite:

The soapstone mineral in Kumaon Himalaya is an alteration products of Soapstone occurs as pockets and sometimes confined to the upper part of the calcareous zones with. The mineral body occurs in irregular shape & size. The foliation in the soapstone trending 305° to 310°, amount of dip varies 40 deg. to 45 deg. and dip direction varies 35 deg. to 40deg.

Scattered habitation exists towards north east of lease area & it is outside lease area, 50m barrier zone from habitation has been considered as G3 axis & all quantities of soapstone 3m below ground surface has been considered under inferred mineral resources &. The area was explored with the help of two mining pits in scattered manners. Due to past mining the pits were exposed up to depth of 3.0 m. to 8.0 m. and soapstone persists in depth. The pits were dug at different levels in the agricultural field & most of the pits have temporarily backfilled/reclaimed. On this assumption, 12m depth has been considered as proved category, 6 m. depth below proved category as probable. The soapstone occurring in these area is weakly foliated, fairly compact, fine grained white to off white in colour with its characteristic soapy feel.

Low Grade Dolomitic Rock: Low grade dolomitic rock is exposed towards foot wall side of pit E-3. It is fine to medium grained, compact & massive well jointed & light grey to dark grey in colour. The veinlets of quartz are also seen across the bolding plane.

The Geological Map in the scale of 1:2000 is shown in Plate No. 4. Geological section is deposited in plate no.5.

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2.2 Reserves:

The summary of geological reserves is given below:

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CATEGORIZATION OF GEOLOGICAL RESERVES UNFC CATEGORY: 111 Proved Geological Reserves

Section	Area (m ²)	Strike Influence (m)	Volume (Cum)	Mineable Reserves (in Tonnes)	Blocked Reserves (in Tonnes)	Total Reserves (in Tonnes)
LB to A-A'	1695.31	21.53	36493.81	37953.57	7458.05	45411.61
A-A' to B-B'	2119.137	40.18	85148.81	88554.76	17401.41	105956.17
B-B' to C-C'	1758.14	49.17	86441.09	89898.74	19488.06	109386.79
C-C' to D-D"	2117.61	47.90	101438.77	105496.32	19591.00	125087.31
D-D' to E-E'	1515.60	41.82	63386.81	65922.28	14925.41	80847.69
E-E' to F-F'	1794.05	34.81	62457.61	64955.91	19435.91	84391.82
F-F' to G-G'	1323.52	35.80	47376.81	49271.88	17121.70	66393.58
G-G' to H-H'	1243.40	36.19	44997.12	46797.00	10681.60	57478.60
H-H' to LB	638.06	24.56	15668.93	16295.69	7602.35	23898.03
11-11 (0 50	14204.82		543409.75	565146.14	133705.47	698851.61

Probable Geological Reserves

Section	Area (m2)	Strike Influence (m)	Volume (Cum)	Mineable Reserves (in Tonnes)	Blocked Reserves (in Tonnes)	Total Reserves (in Tonnes)
LB to A-A'	929.84	21.53	20015.99	20816.62	9386.91	30203.53
A-A' to B-B'	1162.30	40.18	46702.09	48570.17	21901.91	70472.08
B-B' to C-C'	950.46	49.17	46730.48	48599.70	24195.87	72795.57
C-C' to D-D*	1191.39	47.90	57070.41	59353.23	23995.45	83348.68
D-D' to E-E'	813.95	41.82	34041.57	35403.23	18451.75	53854.98
E-E' to F-F'	926.86	34.81	32267.28	33557.97	22466.37	56024.34
F-F' to G-G'	652.97	35.80	23373.86	24308.82	19859.55	44168.37
G-G' to H-H'	709.71	36.19	25683.43	26710.77	11586.38	38297.15
H-H' to LB	282.56	24.56	6938.89	7216.44	8677.07	15893.52
H-H to LD	7620.02	10.10° S	292824.00	304536.96	160521.27	465058.22

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Section Line	Section Area (m ²)			Volume (Cum)		Blocked Reserves (Tonnes)	
	Blocked in (UPL)	Blocked Under 45°	Strike Influence (m)	Blocked in (UPL)	Blocked Under 45°	Blocked in (UPL)	Blocked Under 45°
LB to A-A'	155.04	178.10	21.53	3337.34	3833.859	3470.83	3987.21
A-A' to B-B'	193.79	222.63	40.18	7786.82	8945.311	8098.29	9303.12
B-B' to C-C'	181.05	200.08	49.17	8901.51	9837.002	9257.58	10230.48
C-C' to D-D"	175.56	217.68	47.90	8409.90	10427.6	8746.29	10844.70
D-D' to E-E'	179.12	164.03	41.82	7491.23	6860.124	7790.88	7134.53
E-E' to F-F'	208.91	327.90	34.81	7273.00	11415.37	7563.92	11871.99
F-F' to G-G'	197.41	262.50	35.80	7066.55	9396.624	7349.21	9772.49
G-G' to H-H'	191.28	92.53	36.19	6922.07	3348.703	7198.95	3482.65
H-H' to LB	192.96	104.71	24.56	4738.61	2571.337	4928,15	2674.19
Total	1675.12	1770.16		61927.02	66635.93	64404.10	69301.37

Blocked Reserves of Soapstone Feasibility mineral Resource (211)

Pre-Feasibility mineral Resource (222)

section Line	Section Area			Volum	ie (Cum)	Blocked Reserves (Tonnes)	
	Blocked in (UPL)	Blocked Under 45°	Strike Influence	Blocked in (UPL)	Blocked Under 45°	Blocked in (UPL)	Blocked Under 45°
LB to A-A'	102.93	316,36	21.53	2215.73	6810.1425	2304.36	7082.55
A-A' to B-B'	128.66	395.45	40.18	5169.83	15889.693	5376.63	16525.28
B-B' to C-C'	121.06	352.14	49.17	5951.83	17313.431	6189.90	18005.97
C-C' to D-D"	117.55	364.11	47.90	5630.93	17441.619	5856.17	18139.28
D-D' to E-E'	119.58	304.64	41.82	5001.06	12741.008	5201.10	13250.65
E-E' to F-F'	139.10	481.41	34.81	4842.69	16759.59	5036.40	17429.97
F-F' to G-G'	132.91	400.55	35.80	4757.73	14337.992	4948.04	14911.51
G-G' to H-H'	128.01	179.84	36.19	4632,47	6508.2819	4817.77	6768.61
H-H' to LB	128.82	210.93	24.56	3163.39	5179.9525	3289.92	5387.15
Total	1118.62	3005.44		41365.66	112981.71	43020.29	117500.98

2.3 Mining method:

The mining will be done semi-mechanized way in open cast method in quite a systematic manner by forming 1.5m high benches. However, there may be minor variation

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(॥K/ Harish Kainthola मु0ख0/05/खनन/RQP/2015-167 in the width and height which the lessee will keep on mending. The top soil and interburden to be scrapped with the help of JCB Machine, dozer, shovels, pickaxe, spade & crowbar and will be stacked separately in dump yard located near the working pit. The extracted mineral is properly sorted out at the mine site. Mining work is going on at 10 benches. While crow bars are sometimes used to dislodge the mineral. The pit will be developed during first five year and mining work will take place in crop/ *nap/civil* land only. The slope of the faces will be kept 60^9 - 65^9 and the ultimate slope of the pit will remain 45^9 .

Developmental work will be done by construction of road/track to different working benches, removal of top soil and interburden. The interburden generated during mining will be separately stacked and places shown within the applied area which will be backfilled. The local people will be used for removal of mineral to the nearest road point i.e. 'BerinagMotor road' from where the minerals will be transported by trucks to Haldwani. The slope of track may vary from 1:8 to 1:20. Each mining face will be connected by track/road having width 3.0m.

The mining is confined in the applied area and mining benches of the pit will be backfilled to retain its original topography therefore the efforts for afforestation would be done inside the applied area in between lease boundary and UPL, about 0.094ha area will be covered by 94saplings in three year and by the end of the lease period 608 saplings will be planted. 7.5 m un-mined barrier will be maintained all along the lease boundary and vegetation growth generated on such boundary to isolate mining from rest of the area Plate -11.

(i) Existing Method of Mining:

It is a fresh mining lease and mining is proposed open cast manual mining. Mining is being carried out with formation of benches. The soil is scrapped manually and is mixed with interburden material and dumped near the working pits. Below the soil, soapstone is found which is intermixed with Magnesite boulder and magnesite has been considered as interburden. The soapstone is exploited with the help of pickaxe, crowbar, chisels & spade. Sorting and sizing is being carried out manually at the pit head. Different grade of soapstone is filled into 50 Kg plastic bags and transported up to the PWD road by mules.No drilling and blasting is being carried out for the exploitation of soapstone. Except sorting & dressing no other means of beneficiation is being carried out within the lease hold.

The details of mining pit & dump lying in various khasra number & its ownership/occupancy is given below:

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Mining Pits

Mining pits	RL	Coordinates	Khasra No	Name of Owner Owners
I year Pit-1	1127-1133	N 3304762 to N 3304934& E 386874 to E 386851	927, 943, 962, 971, 972, 973, 975, 976, 977, 989, 990, 991, 1049, 1115, 1116, 1117, 1119, 1120, 1121, 1122, 1123, 1120, 1121, 1122, 1123, 1124, 1126, 1127, 1128, 1129, 1130, 1132, 1133, 1134,1137, 1138, 1142, 1144, 1146, 1147, 1150, 1151, 1153, 1154, 1155, 1159, 1164, 1165, 1166, 1168, 1191, 1625, 1626	Guman Singh, Sadho Singh, Keshar Singh, Ram Singh, Dhan Singh, Kundan Lal, Bhupal Singh, Balwant Singh, Bachai Singh, Rauli, Prem Singh, Jagdish Singh
II year Pit-1	1121- 1130	N 3304713 to N 3304900 & E 386774 to E 386881	950, 1049, 1113, 1115, 1116, 1117, 1119, 1121, 1122, 1123, 1126, 1128, 1130, 1133, 1134, 1135, 1137, 1138, 1139, 1142, 1143, 1144, 1146, 1147, 1148, 1154, 1157, 1158, 1159, 1160, 1161, 1162, 1168, 1482, 1489, 1600, 1616, 1617, 1618, 1619, 1620, 1621, 1622, 1623, 1624, 1625, 1626, 1627, 1628, 1629, 1630, 1631, 1632, 1633, 1634, 1635, 1642, 1645,	Rauli, Keshar Singh, Ram Singh, Dhan Singh, Kundan Lal, Guman Singh, Bhupal Singh, Balwant Singh, Sadho Singh, Rauli, Balwant Singh, Jagdish Singh, Joga Singh
II year	1115-	N 3304703 to N	1121, 1122, 1123,	Kundan Lal,

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Pit-1	1124	3304856 & E 386822 to	1139, 1148, 1157,	Balwant Singh,
		E 386896	1158, 1159, 1160,	Bhupal Singh, Ram
			1161, 1162, 1199,	Singh, Rauli, Bachai
			1482, 1484, 1487,	Singh, Ram Singh,
			1488, 1489, 1497,	Keshar Singh, Dhan
			1593, 1595, 1596,	Singh,
			1597, 1598, 1599,	Jagdish Singh, Joga
			1600, 1601, 1608,	Singh, Kundan Singh
			1615, 1616, 1617,	
			1618, 1619, 1620,	
			1621, 1622, 1627,	
			1628, 1629, 1633,	
			1634, 1635, 1642,	
			1644, 1645,	
IV year	1172-	N 3304981 to N	253, 255, 256, 272,	Dev Ram, Joga Ram,
Pit- 2	1187	3305061 & E 386732 to	273, 274, 275, 276,	Nandan Singh, Sadho
		E 386832	308, 309, 899, 900,	Singh, Guman Singh
			901, 902, 903, 904,	
			905, 906, 925, 945	
V year	1160-	N 3304936 to N	906, 907, 908, 909,	Dev Ram, Sadho
Pit- 2	1175	3305044 & E 386837 to	910, 911, 912, 914,	Singh, Joga Ram,
	_	E 386828	915, 917, 918, 919,	Chanchal Singh,
		1	920, 922, 923, 924,	Guman Singh
			932, 933	

Soil Dump

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Soil Dump	Coordinates	Khasra	Name of Land owner
I Year	N 3304871to N 3304892 & E 386757 to E 386777	869, 870, 871, 1001, 1002, 1003, 1004	Jogaram, Government Land
II year	N 3304888 to N 3304914 & E 386768 to E 386787	869,871,913,916,927,999,1 000,1001	Jogaram, Chanchal Singh, Government Land, Guman Singh
III year	N 3304914 to N 3304935 & E 386778 to E 386793	916,927,928,934,936,937,9 43,990,992	Government Land, Guman Singh, Sadho Singh
IV year	N 3304975 to N 3304996 & E 386780 to E 386806	924,925,926,930,931,934	Guman Singh, Government Land
V year	N 3304988 to N 3305010 & E 386800 to E 386825	930,931,933,934,940,941	Guman Singh, Sadho Singh

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Interburden Dump

Interburden Dump	Coordinates	Khasra	Name of Lease Holder/Holders	
I year	N 3304862 to N 3304888 & E 386766 to E 386786	871, 999, 1000,1001, 1002, 1003, 1004	Jogaram, Government Land	
II year N 3304884 to N 3304904 & E 386777 to E 386795		871, 913, 916, 917, 990, 992, 998, 999, 1000, 1001	Jogaram, Chanchal Singh, Government Land, Guman Singh, Sadho Singh	
III year	N 3304905 to N 3304933 & E 386787 to E 386803	920, 927, 934, 937, 943, 944, 982, 990, 992, 995	Sadho Singh, Guman Singh, Government Land, Sadho Singh	
IV year N 3304966 to N 3304988 & E 386786 to E 386811		930, 932, 934, 937, 938,	Guman Singh, Government Land, Sadho Singh	
V year	N 3304980 to N 3305002 & E 386806 to E 386831	934, 938, 946, 990, 994	Guman Singh, Sadho Singh, Government Land	

Plantation

Plantation	Coordinates	Khasra	Name of Lease Holder/Holders
I year	N 3304812 to N 3304934 & E 386844 to E 386894	963,1142,1143,1154,11 56,1161,1162,1163, 1165,1166,1482,1484,1 489,1496,1502	Guman Singh, Bachai Singh, Keshar Singh, Balwant Singh, Ram Singh,Government Land, Bhupal Singh Rauli, Dhan Singh
II year	N 3304712 to N 3304815 & E 386787 to E 386897	1480,1502,1503,1504,1 509,1510,1514,1515, 1516,1517,1520,1524,1 525,1526,1527,1528, 1531,1533	Keshar Singh, Dhan Singh, Bhupal Singh, Jagdish Singh, Ram Singh, Bhupal Singh
III year	N 3304711 to N 3304797 & E 386753 to E 386889	1048,1051,1053,1105,1 106,1107,1577,1569, 1588,1604,1607,1609,1 614,1637,1642,1643, 1644,1645,1693,1696,1 701,1707,1708,1724, 1725,1726	Bachai Singh, Keshar Singh Ram Singh, Government Land, Kushal Singh, Balwant Singh, Lal Singh Dhan Singh, kundan Singh, Bhupal Singh,

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			Diwan Singh,, kundan Singh, Jagdish Singh
IV year	N 3304972 to N 3305060 & E 386730 to E 386835	242,252,253,268,271,27 3,277,278,280,281,284, 285,286,287,306,307,30 8,309,310,313,873,891, 892,895,896	Khal, Rauli, Devram, Jogaram
V year	N 3304934 to N 3305061 & E 386833 to E 386847	252,900,901,902,904,90 5,918,920,921,923,924, 933,939,935,940,941,94 2,943,946,948,950,951, 953,956,957,959,960, 961,962	Rauli, Devram, Sadho Singh, Guman Singh

(ii) Proposed method of mining:

Excavator shall be deployed for the removal of overburden & interburden. Soapstone is soft mineral therefore no drilling & blasting shall be required. No further beneficiation will be required except breaking & sorting. From road side the soapstone bags will be loaded into trucks through manually and transported to Haldwani The salient points of proposed method of mining are given below:-

- The mining will be done semi-mechanized way in open cast method in quite a systematic manner by forming upto 9 m high benches with 1.5m to 3.0m subbenches. However, there may be minor variation in the width and height which the lessee will keep on mending.
- The top soil and interburden to be scrapped with the help of JCB machine, dozer, shovels, pickaxe, spade & crowbar and will be stacked separately in dump yard located near the working pit.
- The extracted mineral is properly sorted out at the mine site. Crow bars are sometimes used to dislodge the mineral.
- The excavation for soapstone will be made through JCB Machine, dozer, shovels, pickaxe, spade & crowbar.
- It is proposed to make 5m to 9.0m height benches which will be sliced in three stages each of 3.0m height with 1.5m height sub benches.
- The slope of the faces will be kept 60⁰-70⁰ and the ultimate slope of the pit will remain 45⁰.
- Developmental work will be done by construction of road/track to different working benches, removal of top soil and interburden.
- The soil will be filled into the bags, loaded on mules and unload into stockyard.

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- The interburden generated during mining will be separately stacked and places shown within the applied area which will be backfilled.
- Sorting of high grade soapstone will be done on the benches by the labourers and it will be graded.
- The local people will be used for removal of mineral to the nearest road point from where the minerals will be transported by trucks to Haldwani.
- The mineral will be loaded over the trucks by the manual labour. The pit will be connected by track/foot path to the main road.
- The slope of track may vary from 1:8 to 1:20.
- Each mining face will be connected by track/road having width 3.0m.
- Exploitation of soapstone is small scale of mining and does not require any drilling & blasting.
- The average rate of production of soapstone is estimated in between 20000 to 24000 tonnes from I year to V year.
- Proper precautionary measures shall be taken to prevent soil erosion.
- The recovery of the soapstone will be 40% of the total excavation.
- Office, store, first aid centre, drinking water shed, rest shelter etc. will be constructed temporarily within the applied area.

The mining is confined in the applied area and mining benches of the pit will be backfilled to retain its original topography therefore the efforts for afforestation would be done inside the applied area in between lease boundary and UPL, about 0.495 area will be covered by 2295 saplings upto five year. Upto lease period 22950 saplings will be done in *Van Panchayat* and forest land after taking due permission from concerning authority.

- The top soil and interburden are stacked separately in dump yard within the applied area and will be used for reclamation of the pit after exploitation of the mineral.
- Mining operations shall be carried out scientifically by following the provisions of Mining and Minerals (Development & Regulation) Act, 2015, MCDR Notification 2017, Uttarakhand, Metalliferrous Mines Regulations (MMR) 1961, UKMMCR 2001 and time to time directions/amendment given by Geology & Mining Unit & State Government will growth generated on such boundary to isolate mining from rest of the area not be over looked at any stage.
- 7.5 m un-mined barrier will be maintained all along the lease boundary and vegetation
- Exploitation of the soapstone will not be done in land for public use.

It will be open cast mechanized mine. Due to the scarcity of workers it is not possible to carry out mining operation systematically & scientifically through the formation of benches. Therefore lessee has left no option but to deploy an excavator for systematic & scientific mining, conservation of mineral & protection of environment. It has been revealed from past mining experience that average recovery of waste rock / boulders is around 60% of total ROM. The rock formation is hard & rock breaker may be deployed for the removal of hard strata. Lessee

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intends to set up small crusher unit so that waste rock/ boulders shall be utilised for making aggregates. If waste material is used for making aggregates, the problem is disposal of waste shall be solved & govt, will earn revenue. Chemical analysis of soapstone and waste material can be carried out from Laboratory of Directorate of Geology & Mining, Bhopalpani, Dehradun.

Extraction & management of minerals has to be guided by long- term national goals & perspective & integrated into the overall strategy of the country's economic development. Mining technology will be upgraded to ensure extraction & utilisation of entire Run of Mines (ROM). There shall be an adequate & effective legal & institutional framework promoting zero waste mining as the ultimate goal & commitment to prevent sub-optimal & unscientific mining.

Mining shall be carried out from higher level & subsequently advance to upper levels. As soon as mining pits reach its maximum economical depth backfilling shall be commenced from lower level to restore the maximum original topography of the area. This is common practice of soapstone mining in Kumaon Himalayas. Backfilling in both the pits shall commenced from first year onwards to restore the mined out pit to its maximum original topography. The average depression will be 2.0m with respect to its original topography.

The development activities along with khasra details are shown in year wise development plan.

All quantities of waste material to be generated each year shall be dumped with in lease area secured with retaining wall.

Item	Details				
i) Method of Mining	Mining operation has been proposed by mechanized open cast method.				
ii) Benches parameters	The broad parameters of working benches:				
Bench Height	5.0m to 9.0m				
Width	8.0m				
Haul road width	6.0m				
Bench slope	68 ⁰				
Over all Pit slope	320				
Overall depth of mine during plan period	In pit-1 depth of mine varies between 3m to 8m (from 1133mRL to 1118mRL) while in pit- 2 depth of mine varies between 8m to 9m (From 1187m RL to 1163m RL).				
Gradient of Haul Road	1:16				
Grid reference of proposed working location	Pit 1 will be in between coordinates N3304703 to N3304856 & E386774 to E 386851 & while in Pit 2 it is in between coordinates N 3304936				

The broad parameters of working benches:

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	to N 3305044 & E386732 to E386828.
Water table	No water table will be encountered due to proposed mining activities.
Pumping of water	No water will accumulate in the mining pit therefore no such proposal has given for pumping water.
Surface water management	Seasonal drainages exist within area & flow north to south direction. Mining activities are proposed for away from drainage & mining operations shall be temporarily closed during monsoon period. During monsoon period all mining pits shall be backfilled, therefore there shall be no adverse impact on water on water regime. Few check damps are proposed across the drainage to settle down suspended solids if any.

2.4 Mineral Beneficiation:

No mineral beneficiation will be under taken for five years. The soapstone will be dressed manually and different grade of soapstone stacked separately, which will be dispatched to various parties.

3 Review of Implementation of Mining Plan/Scheme of Mining including five years Progressive Closure Plan upto final closure of mine:

Mining plan of the area under reference is yet to be approved. It is therefore premature to make any comments about its review.

4 Closure plan

4.1 Mined Out Land:

The mining will commence from the higher levels and will advance towards lower levels. Intermittent backfilling will commence from the higher levels and subsequently advance towards the lower elevations so that terraced agricultural fields would undertaken in such a manner that original land use will be restored i.e. before the onset of monsoon will be handed over to cultivators for cultivation. The final backfilling will be started once the ultimate benches are formed and pit reaches the optimum economic depth. The year wise proposal for reclamation is shown in Plate – 6 to 10 enclosed in the Mining Plan.



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KAINGEOTECH Geological, Geotechnical, Mining & Environmental Consulting All recovery of the mineral will be of the saleable grade. The quantum of development and mineral to overburden soil and interburden in the pit is given below:

Year	Overburden soil (cum)	ROM (Tonnes)	Interburden (cum)	Stripping ratio
1	3789.20	20000	21618.94	1:0.78
Π	4379.08	24000	25913.76	1:0.79
III 5291.74		24000	26294.31	1:0.75
IV	3394.52	23000	24454.03	1:0.82
V	3020.88	23000	24319.78	1:0.84
Total	19875.42	114000	122600.82	

The closure proposals implemented during the first five year period are given below:

A. Mines out land	Crop/Nap land (ha)
 a) (i) Area already broken up 	* 3
(ii) Area already backfilled	
(iii) Area already reclaimed	•
b) (i) Additional area proposed to be broken up during first 5 year	1.829
(ii) Additional area proposed to be backfilled	*
(iii) Additional area proposed to be reclaimed	1.829

B. Dump- Soil & Interburden (IB)	Crop/Nap land (ha)
	Soil- 0.013 IB- 0.012
(ii) Additional area to be covered by dump	-
(iii) Dump area to be covered by	0.025

C. Plantation	Revenue/Benap land (ha.)	Crop/Nap land (ha)		
(i) Area already covered	•	•		
 (ii) Area proposed to be covered under plantation in five years 	-	0,459		

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S. No.	Description	Area (ha)	Reclaimed & Rehabilita ted till end of last MP/MS period (ha)	To be Reclaimed & Rehabilitated till the end of present plan/ scheme period (ha)	To be Reclaime d & Rehabil- itated till the end of life of mine (ha)	*To be Reclaime d & Rehabil- itated after end of life of mine (ha)	Remarks Area to be reclaime d by the end of lease (ha)
1	Mining (Quarry)	1.829	*	1.829	7.841	*	6.223
2	Waste dump	0.025	*	0.025			0.025
3	Office infrastructure	0.009	-	0.009			0.009
4	Processing plant	90. j		14271			
5	Mineral Stack/Processin g yard	0.005	-	0.005			0.005
6	Sub grade mineral stacks		+	24.0			2
7	Roads	0.191		0.191			0.764
8	Water course/pond/ reservoir		1993	-			-
9	Unutilized area	5.782		5.782			0.811
1	Total	7.841		7.841			7.841

Proposed land use (till end of life in ha.)

4.2 Water Quality Management: No perennial surface or ground water bodies exist within the lease area. The mineral as well as soil and interburden are non-toxic and mining is also proposed at very small scale. Hence no proposal has been provided for the surface and ground water bodies. The impact on water with the kind of mining activity proposed may be as given below.

The water may carry suspended solids from mine waste to nearby streams. Deterioration of water quality with interaction of loose material and other and changing hydrologic cycle by affecting the infiltration run off relationship as a result of removal of top soil/vegetative cover. However, during the course of mining of soapstone waste like top soil, etc. is inert to the water. As such there is no danger to deterioration in the quality ofwater. Further pit excavation will indirectly help in recharging ground water aquifer. The drinking water is being supplied from the spring fed nala and from pipe line. The expected depth of water table in applied area likely to be more than the exploitation depth.

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4.3 Air Quality Management: The lease area is situated in a hilly terrain. The semimechanised way mining without drilling and blasting has been proposed. There is no polluting agent within 5 km area of mining lease and the mining is also proposed at very small scale. Therefore the impact on air environment will be negligible. During the course of mining of soapstone no toxic substances are released into the atmosphere as such there seems to be no potential threat to health of human beings. Semi-mechanised way mining, loading and transport operations shall be limited in the instant case. Mining and allied activities are going on a comparatively small scale; the existing air is absolutely clean.

4.4 Waste Management:

- The top soil will be removed with the help of JCB machine, dozer, shovels, pickaxe, spade & crowbar and stacked separately. The soil intermixed with fragments and interburden rejects are low grade magnesite. Part of these rejects will be utilized in construction and maintenance of retaining walls, parapet walls, check dams and other construction works. About 36780 cum of rejects will be used for this task, and remaining rejects about 85820 cum will be backfilled.
- The quantity of top soil & overburden (Rejects/Waste) to be generated in each year is given below:

Year	Top Soil (cum)	Interburden (cum)	Mineral Rejects (cum)	
1	3789.2	21618.94	25408.14	
II	4379.08	25913.76	30292.84	
III	5291.74	26294.31	31586.05	
IV	3394.52	24454.03	27848.55	
V	3020.88	24319.78	27340.66	
Total	19875.42	122600.82	142476.24	

The site for dumping the waste have been selected keeping in mined the ultimate pit limit, proximity to roads and lead from working benches. The proposed dump yards have adequate capacity to accommodate the waste production without rehandling except backfilling. Drainage from the dumps remain natural i.e., water shall be passed under the solid dumps. The built up of waste has been shown on the yearly mining plan and section. The top soil and interburden dump are temporary in nature & when pit will reach the economical depth; all the remaining quantities will be used in backfilling to restore the maximum topography of the area. The location of top soil stack and interburden dump are shown in Plate – 6 to 10.

4.5 Top Soil Management: No toxic and hazardous elements are present in the waste material. During five years about 19875.42 cum of soil will be generated. About 19875.42 cum of soil will be spread over the backfilled area. About 126m long retaining wall having width of 10m and height 1.5m will be made at the periphery of the soil stack to avoid the wash off the material during intermittent rains. It is proposed that part quantities of soil to-

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be produced will be spread on the backfilled pits so that mined out area will be converted into terraced agricultural field.

4.6 Tailing Dam Management: No tailing dam is proposed in the soapstone mine.

- 4.7 Infrastructure: Soapstone mining is semi-mechanised way open cast. The tracks having width of 3.0m and gradient 1:8 to 1:20 will be made for the advancement of mining faces and for the transportation of soapstone and overburden. There will not be any changed in existing infrastructure, however with the mining there will be improvement in the infrastructure in due course of time.
- 4.8 Disposal of Mining Machinery: The soapstone mine is open cast with semimechanised way. Machineries having the capacity upto 500 horse power will be used for excavation of the overburdened as well as mineral.
- 4.9 Safety and Security: Each worker employed in the mine will be provided helmets and shoes. Safety belts will be used for working in the top of the benches. The track will be provided to open the mining faces. The maintenance of track will be under taken periodically. Interburden and soil will be dumped near the working pits after providing retaining/toe wall. As proposed earlier that when the pit reaches the optimum economical depth, final backfilling will be started so that mined out area will be restored in its original topography Therefore by adopting these measures the working will be safe and secure. An experienced Permit Manager/Mines Foreman will be employed for the supervision of mining operations. There will not be any impact due to mining, dumping and other activities to local people.

At the time of closure of mining operations it is necessary to take adequate measures to ensure that persons and animals do not stray into the working pits/excavations and other surface openings and to prevent any type of accidents. Therefore protective works like fences, parapet walls, garland drains shall be provided before the mine/pit is abandoned.

4.10 Disaster management and risk assessment:

At present the mining is proposed in a moderate slopping crop/nap land only. When the mining will reach up to the optimum economical depth then final backfilling will commence to restore the topography of the area. The mining faces shall be dressed properly because any hanging boulders/loose material may create fatal accidents to the labourers while working in the pit. The mine shall be critically examined for its proneness to any natural hazard and assessment regarding danger of hazard and precautions to be taken should be reviewed and updated yearly preferably before the onset of monsoon so that water will not affect the benches & chances of slope failures will be minimized. Effective communication may be established within the mines for safe withdrawal of persons. Necessary standing orders in this regard need to be framed and enforced. Through sustained and meaningful R&D activities mining companies and research institutions shall help in creating a better understanding of the complex_geo-mining

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UK Harish Kainthola मुण्डा0/05/खनन/RQP/2019-16 situations leading to the occurrence of fire which in turn will help in formulating guidelines to combat the problem of fire in effective manner. There is risk of accidents like landslides, seismic activities, check dam failures, fires and inundation etc. Although such accidents are unlikely to happen yet provision for meeting such eventualities is required to be made in the event of mine closure. An important element of mitigating disaster is recognizing that accidents are possible and assessing the consequences of such accidents and deciding on emergency procedure. In case of any accidents or to meet any type of risk, the affected person can contact in following address of Smt. Janki Rathor W/o Shri M. S. Rathor House no. 346/3 Kalawati Colony, Haldwani and Partner M/s Star Mines and minerals House No. 1516, Savitri Colony, Haldwani, Distt. Nainital. Mobile No- 8476037777.

4.10 Care and maintenance during temporary discontinuance -

During temporary discontinuity of the mine care and maintenance of each worker will be taken care by contractor.During monsoon period (i.e. from June to September) every year mining operations shall be temporarily discontinued and all the quantities soil & interburden shall be temporarily backfilled into mining pits levelled it & make it use for agriculture purpose. The backfilled mining pits shall properly fence to avoid any accident. Local person shall be employed to supervise the area & broken walls, check dams, linear drain, wire fencing shall be repaired immediately.

5 Economic Repercussions of Closure of manpower retrenchments and mine

All the workers to be employed will be contractor labours.

Local residents of nearby villages will be employed in the mine. The family occupation is mostly farming. A few of them have occupation of carpentry & masonry.

All the legal dues as applicable under labour laws will be payable to the workers.

About 30% of the workers employed in mine may be independent but they are controlled and depended by their family members.

The local residents will be employed in the mining operations and allied activities related to mining operations.

The industry will provide direct and indirect employment to local residents. They will earn a good amount of money due to mining activities. It will change their life style. Due to closure of mine, it will create very bad impact on the economy of the workers for their survival. Those earning good money will reach some occupation for survival of their families. The literate workers will move here and there for the search of job. In the overall view the closure of mine will cause adverse impact on the society and surrounding areas.

Individual lands owners in which respective field mining operations are in progress becomes the contractor for raising the soapstone mineral in his respective field and engage the local residents.

All the workers being employed are contractor labours.

Any industry will provide direct and indirect employment. The local residents will earn tremendous amount of money due to mining activities. It will change their life style. Due to closure of mine, it will create very negative impact on the economy of the workers for their

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survival. Those earning good money will get some occupation for survival of their families. The literate workers will move here and there for the search of job. In the overall view the closure of mine will give very bad impact on the society and surrounding areas.

- 5.1 Mining shall be carried out through contractor in the proposed area & likely to be continued in the same manner. So no retrenchment of manpower is envisaged. Status of joining the family business back on the event of closure of mine & will depend on the circumstances prevailing at that time. However, chances of joining the family business back will not be so bright.
- 5.2 The compensation to given will depend on the labour laws prevalent at that time. Since 80% employees will be contract. They will not be compensated. Other will get benefit of compensation as per labor laws, while the staff will get only notice pay.
- 5.3 There are some satellite occupations connected to mining operations at present with in a distance of 5km. e.g. workshop/truck repair shops, tyre shops, general stores, small restaurants, fruit shops, tea shops etc. Such business at the time of closure is likely to get closed down, however the effect of single mine closure may not be fell at all.
- 5.4 Since the lessee will hand over the lease area to State Govt., there are no chances of continued engagement in the backfilled/reclaimed status. Once the lease is determined then all the remnant activities will come to an end barring the period of reclamation period.
- 5.5 The closure of mine will have grave repercussion on the expectations of society since the obvious advantages received will cease & the closure will directly affect their livelihood. Land owners will cease to get compensation in lien of surface rights. The local habitant in general will feel insecure as their education, health standards & life expectancy will be badly affected.

6 Time scheduling for abandonment:

The operations required to be carried out at the time of closure/abandonment of mines, shall be reclamation and rehabilitation by back filling the worked out area involving provision and maintenance of protective work like drains, parapet walls, retaining walls, Management of Air & water quality, Waste, top soil. Infrastructure and mining operation related equipments disposal, safety and security. The resources required for management of these operations shall be supervision, raw materials (mainly stone available at mines), cement, gates, fencing, transport & communications. It is proposed in the mining plan that mining will open from higher elevations and subsequently advance towards lower levels so that con- current reclamation will be undertaken to restore the topography of area. The backfilling will be commencing from first year onwards. During five years about 1.829 ha area will be backfilled.

The backfilled area will be again used for agricultural purposes. During five year about 126m long toe wall having width 10m and height 1.5m will be made along the slope and side of the top soil stack. About 550m long toe wall having width and height 1.0m each will be made along the side and slope of interburden dump. About 517m long retaining wall having width and height 1.5m each will be made along the base of backfilled pit.

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Harish Kainthola मुठख0/05/खनन/RQP/2015-16

7 Abandonment cost:

Retaining wall/Toe wall: The requirement of funds for protective and rehabilitation measures will depend on the extent to which these measures have been taken during the normal working of the mines.

Backfilling: During five years about 1.829 ha area will be backfilled and restored to its topography.

8 Financial assurance:

The area put to use for mining and allied activities during mining plan period for calculation of financial assurance is given in Plate - 14

Area to be considered for financial assurance @ Rs. 25,000 per ha for 2.059 ha Area is Rs. 51.475/-.

The lessee will submit the financial assurance of 2 Lac to Director Geology and Mining, Dehradun before the execution of lease deed.

Note* The area covered under plantation is excluded from financial assurance. Area to be considered for financial assurance 7.841 ha.

Financial assurance @ Rs.25,000/- per ha.

7.841 ha X 25,000 = Rs. 1,96,025/-

(Rupees One Lac Ninety Six Thousand Twenty Five Only)

However, the provisions of the Uttarakhand Minor Mineral Concession Rule, 2001, the minimum amount as a financial assurance will be Rs. 2 Lac. Lessee will submit bank guarantee of Rs 2.0 lac to Director, Geology & Mining Bhopalpani, Dehradun at time of granting the GO.

Financial area assurance plan is shown in Plate No. 14.

Date:

Place:

Harish Kalnthola मु0ख0/05/खनन/RQP/2015-18

KAILASH CHANDRA RQP/UKGMU/No.012/YEAR2019

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उत्तराखण्ड शासन औद्योगिक विकास (खनन) अनुमाग—1 संख्या: //30 /VII-A-1/2020/1(4)/20 देहरादून,दिनांक: 20 नवम्बर, 2020

कार्यालय ज्ञाप आशय पत्र

जनपद व तहसील बागेश्वर के ग्राम करूली में कुल 28.264 है० भूमि में उपखनिज सोपस्टोन का खनन पटटा चाहने हेतु श्रीमती जानकी राठीर पत्नी श्री एम०एस० राठीर, हाऊस नं० 346/3, कलावती कालोनी, हल्द्वानी एवं जन्य साझेदार मै० स्टार माइन्स एवं मिनरत्स, हाउस नं० 1516 साबित्री कालोनी, हल्द्वानी के आवेदन पत्र दिनांक 08.12.2015 एवं निदेशक, मूतत्व एवं खनिकर्म इकाई. उत्तराखण्ड के पत्र संख्या-746/मु०ख०/19/सोपस्टोन/भू०खनि०ई०/2015-16, दिनांक 31 जुलाई, 2020 द्वारा उपलब्ध कराये गये प्रस्ताव के क्रम में इस आशय पत्र (letter of Intent) के माध्यम से राज्य सरकार श्रीमती जानकी राठीर पत्नी श्री एम०एस० राठीर, हाऊस नं० 346/3, कलावती कालोनी, हल्द्वानी एवं अन्य साझेदार मै० स्टार माइन्स एवं मिनरत्स, हाउस नं० 1516, सावित्री कालोनी इल्द्वानी के प्रष्ट में जनपद एव तसहील बागेश्वर के प्रान करूली के क्षेत्रान्तर्गत आवेदित कुल 28.264 है० भूमि के सापेक्ष कुल 19.879 है० मूमि में उत्तराखण्ड गौण खनिज नीति, 2015 (समय-समय पर यथासंशोधित) के प्रावधानानुसार उपखनिज सोपस्टोन का 50 वर्ष की अवधि हेतु खनन पटटा स्वीकृत करने की मंशा रखती है। आवेदक यदि उक्त खनन पटटा लेने हेतु सहमत हो तो निम्नलिखित शर्तो का अनुपालन पत्र प्राप्ति के छः माह में प्रस्तुत करें, जिससे खनन पटट की औपचारिक स्वीकृति जारी की जा सके --

- उत्तराखण्ड गाँण खनिज नीति, 2015 (समय-समय पर यथासशोधित) के नियमों/प्रतिबन्धों पर लिखित सहमति पत्र।
- उत्तराखण्ड गौण खनिज नीति, 2015 के प्रस्तर 3(दो)(5) के अनुसार आवेदक द्वारा खनन योजना संबंधित खान अधिकारी/उप निदेशक (खनन) के समक्ष र 20,000/–की धनराशि निर्धारित लेखाशीर्षक में ट्रेजरी चालान के माध्यम से जमा कराने के उपरान्त चालान की प्रति के साथ प्रस्तुत की जायेगी।
 - 3. आवेदक द्वारा उत्तराखण्ड गौण खनिज नीति, 2015 के प्रस्तर--3(ग्यारह) में कार्यालय संख्या--1589 / VII-1 / 2015 / 68--ख / 2015, दिनांक 7 अक्टूबर 2015 के द्वारा किये गये संशोधन के अनुसार, बैक गारन्टी र 1.00 लाख मैनुअल माईनिंग एवं र 2.00 लाख मशीनीकृत माईनिंग हेतु निदेशक के पक्ष में प्रस्तुत करनी होगी ।
 - उत्तराखण्ड गौण खनिज नीति, 2015 के प्रस्तर--7 के अनुसार आवेदक को खनन पट्टे में पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार की अधिसूचना काठआठ 2601 (अ) दिनांक 07 अक्टूबर 2014 के क्रम में जारी शासनादेश संख्या--1621 / VII-1 / 212-ख / 2014.
 - दिनांक 17 दिसम्बर 2014 के अनुसार पर्यावरणीय अनुमति प्राप्त किया जाना आवश्यक होगा। 5. उत्तराखण्ड गाँण खनिज नीति, 2015 के प्रस्तर—8 के अनुसार आवेदक को प्रतिभूति धनराशि
 - उत्तराखण्ड गाण खानज नात, 2015 के प्रतार के पक्ष में बन्धक करना होगा।
 र 10,000 /- निदेशक, भूतत्व एवं खनिकर्म इकाई के पक्ष में बन्धक करना होगा।
- आवेदक को उत्तराखण्ड पर्यावरण संरक्षण एव प्रदूषण नियंत्रण बोर्ड उत्तराखण्ड से CTE/CTO प्राप्त करना आवश्यक होगा।
 - राजस्व विभाग द्वारा निजी भूमि धारकों की सूची खसरा विवरण सहित सॉफ्ट कामी एवं हार्ड कामी ए-4 साईज में निदेशालय एवं शासन को उपलब्ध करायी जायेगी।
- छनन पट्टा क्षेत्रान्तर्गत सार्वजनिक उपयोग की कुल 0.635 है॰ भूमि में खनन कार्य निषिद्ध रहेगा।
 - 9. प्रस्तावित क्षेत्र का सीमाबन्धन मूलत्व एवं खनिकर्म इकाई के अधिकारियों द्वारा राजस्व विमाग तथा प्रमागीय वनाधिकारी, बागेश्वर वन प्रभाग के प्रतिनिधि के द्वारा संयुक्त रूप से किया जायेगा। सीमाबन्धन के समय यदि क्षेत्र का कोई भाग आपत्तिजनक पाया जाता है तो उसे पृथक कर दिया जायेगा, जिसके फलरवरूप क्षेत्र अथवा क्षेत्रफल में कोई परिवर्तन किया जाता है, तो वह आवेदक को मान्य होगा।

- 10. आवेदक खनन कार्थ के दौरान रणल में उपलबा सार्गजनिक सम्पति। आवासीय भवन, सार्यजनिक ख्यल भवन जादि को हानि नहीं पहुँचायेगा। हानि पहुँचाने की सिंगति में आवेदक स्वय जिम्मेदार होगा।
- 11. कार्यालय झाप संख्या-1457/VII-1/2017/58 ख/15, दिनांक 17 नवम्बर, 2017 के बिन्दु संच 6(तीन)(फ)(2) के जनुसार आशय पत्र की समस्त शर्तों को पूर्ण किंगे जाने के पश्चात निदेशक, मूतत्व एवं खनिकने इकाई की स्वारं संरत्तुति पर शासन द्वारा जनन पटटा स्वीकृत किया जायेगा, परन्तु पट्टाधारक द्वारा स्वीकृत क्षेत्र में रतनन कारों का प्रारम्भ संबंधित मू स्वाभियों की सहमति/अनापति के उपरान्त ही किया जायेश।
- 12. आवेदक द्वारा यमें का प्रजीकरण माधीदारी विलेख, फर्म के सभी भागीवारों का चरित्र प्रमाण पत्र, सभी भागीदारों का रंगनन अदेशता प्रमाण पत्र, रामी भागीवारों के पूल निवास प्रमाण पत्र, रामी भामीदरों के द्वारा आसंकर विवरणी जंगा करारों जाने साखन्ती आगर अधिकारी द्वारा निर्मत अद्यतन प्रमाण पत्र एवं जीवएरावटीव नव प्रस्तुत किया जाना अनिवाये लागा।
- खनन पट्टा क्षेत्रान्तर्गत जाने वाले वृधों को वन तिमाग प्रारा निर्धारित मानकों के अनुसार सरक्षित रखने की जिम्मेदारी आवेदक की दोगी।

एन०एस० डुंगरियाल संयुक्त सचिव

संख्याः //30 (1)/VII-A-1/2020 तद्दिनांकित।

प्रतिलिपि निम्नलिखिल को सूचनार्थ एव आवश्यक कार्यवाही हेतु प्रेषित

- निदेशक, मूतत्व एवं खरिकर्म इकाई, उत्तराखण्ड, देहरादून को उनके उक्तांकित पत्र के सन्दर्भ में सूचनार्थ एवं निम्न निर्देशों के साथ कि उत्तराखण्ड मोण खनिज नीति, 2015 (समय समय पर यथासंशोधित) के प्रावधानानुसार खनन पटटा हेतु प्रस्ताव शासन को उपलब्ध कराने का कष्ट करें –
 - (क) इस आदेश द्वारा रवीकृत क्षेत्र का सीमाबन्धन प्रत्येक दशा में इस आदेश की दिनाक से 60 दिवस में करा लिया जाय ताकि समयान्तर्गत पट्टाधारक द्वारा पटटाविलेख का निष्पादन कराया जा सके।
 - (ख) खनन पट्टा क्षेत्र के सीमाबन्धन की सूचना मय सीमाबन्धन रिपोर्ट, मानचित्र आदि के सीमाबन्धन पूर्ण किये जाने की दिनांक से 10 दिवस में शासन को प्रेषित कर दी जाये।
 - (ग) सीमाबन्धन रिपोर्ट में यह प्रमाण पत्र अवश्य दिया जाये कि खनन पटटे पर स्वीकृत क्षेत्र में सम्मिलित वन भूमि के अलावा कोई अन्य वन भूमि खनन पटटा हेतु सीमाबन्धित क्षेत्र में सम्मिलित नहीं की गई है तथा सीमाबन्धित क्षेत्र की परिधि से कम से कम 100 मीटर की दूरी पर है।
- 2. जिलाधिकारी, बागेंश्वर।
- श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर, हाऊस नं० 346/3, कलावती कालोनी, हल्द्वानी एवं अन्य साझेदार मै० स्टार माइन्स एवं मिनरल्स, हाउस नं० 1516, साधित्री कालोनी हल्द्वानी।
- मार्ड फाईल।

आज्ञा से (दिनेश सिंह भण्डारी)

अन् सचिव

Annexure- 2

संयुक्त सीमांकन रिपोर्ट

वागेश्वर

आज दिनांक 22/12/02 को जनपद वाग्ने ये तहसील वाग्ने वर के ग्राम बारक 27 में श्रीमती भात की रातीर मुंब श्री मेहरवान सार्ट राहीर के पक्ष में स्वीकृत 19.879 हैं 27 मिल्लिस के का सीमाबन्धन क्षेत्रीय राजस्व उप निरीक्षक द्वारा बताये गये सन्दर्भित बिन्दु के आधार पर पट्टांधारक / प्रतिनिधि श्री संहरबाना स्नुट राहीर के समक्ष सम्बन्धित विभागों की उपस्थिति में किया गया। आवेदक / आवेदिका के प्रतिनिधि को सभी सीमा स्तम्भों के स्थान दिखा / बता दिये

सर्वजन्म.

पूर्वत्व एवं व्हीन्डवे इकार बिला व Neris 11 - 10:57

आज दिनांक 28 12/07 को जनपद वागरेका तहसील नागरेका के ग्राम तर्फको में श्रीसही जानकी सहिद की श्री सिंहरतान किंह के पक्ष में स्वीकृत की जित 27 8 में श्रीसत्र में आवेदक/आवेदिका/के प्रतिनिधि ने सीमाबन्धन के दौरान बताये गये सीमा स्तम्भों का निर्माण कर लिया गया है।

201 जार वागेश्वर

Ŧ.

कार्यालय उपनिदेशक/भूवैज्ञानिक

भूतत्व एवं खनिकर्म इकाई, उद्योग निदेशालय उत्तराखण्ड, जनपद बागेश्वर।

संख्या 634 /जिंग्टांवफोंग्/गौण खनिज-15/2020-21.

Rentin 23-02-2021

सेवा में,

निदेशक, भूतत्व एवं खनिकर्म इकाई, उद्योग निदेशालय, उत्तराखण्ड, देहरादून।

विषयः

जनपद व तहसील बागेश्वर के ग्राम करूली में आवेदित कुल 28.284 है0 के सापेक्ष 19.879 है0 मूमि में उपखनिज सोपस्टोन का खनन पट्टा चाहने हेतु श्रीमती जानकी राठौर पत्नी श्री एमछएसठ राठौर हाउस नंठ 346/3, कलावती कालोनी हल्द्वानी एवं साझेदार मेठ स्टार माइंस एण्ड मिनरल्स हाउस नंठ 1518 सावित्री कालोनी, हल्द्वानी के आवेदन पत्र दिनांक 08.12.2015 के कम में उत्तराखण्ड शासन औद्योगिक विकास अनुमाग-1 के कार्यालय झाप संख्या 1130/VII-A-I/ 2020/ 1(4) /20 दिनांक 20 नवम्बर 2020 के द्वारा आजाय पश्र पर स्वीकृत खनिज सोपरटोन खनन पट्टा क्षेत्र के सीमाबन्धन के सम्बन्ध में।

महोवय,

कृपयां उपरोक्त विषयक औद्योगिक विकास अनुमाग-1 के कार्यालय ज्ञाप संख्या 1130/VII-A-I/2020/1(4)/20 दिनांक 20 नवम्बर 2020 के कम में संयुक्त निदेशक, मूतत्व एवं खनिकर्म इकाई, उद्योग निदेशालय, उत्तराखण्ड, देहरादून के पत्र संख्या 2131/खनन/19/भू0खनि0ई0/बागे0/2015-16 दिनांक 27 नवम्बर, 2020 जो जिलाधिकारी महोदय बागेश्वर व खान अधिकारी, मूतत्व एवं खनिकर्म इकाई, बागेश्वर को तम्बोधित तथा आवेदिका को पृष्ठांकित है, के द्वारा जनपद व तहसील बागेश्वर के ग्राम करूली में आवेदित कुल 28.264 है0 के सापेक्ष 19.879 है0 मूमि में उपखनिज सोपस्टोन का खनन पट्टा हेतु श्रीमती जानकी राठौर पत्नी श्री एम0एस0 राठौर हाउस नंठ 346/3, कलावती कालोनी हल्हानी एवं साझेदार मै0 स्टार माइंस एण्ड मिनरल्स हाउस नंठ 1516 सावित्री कालोनी, हल्हनी के आवेदन पन्न पर निर्गत आशय पत्र के सम्बन्ध में आवेदित क्षेत्र का सीमाबन्धन किये जाने के आदेश दिये गये हैं।

उक्त के अनुपालन में आवेदित क्षेत्र का सीमाबन्धन आवेदिका के प्रतिनिधि की उपस्थिति में विमानीय सर्वेक्षक द्वारा राजस्व उपनिरीक्षक व वन दरोगा की सहायता से दिनांक 23.12.2020 को सम्पन्न किया गया। सीमाबन्धन के दौरान कुछ ग्रामीणों द्वारा प्रश्नगत् क्षेत्र के कुछ भाग में जिसमें उनकी भूमि स्थित है, में सीमांकन करने हेतु आपत्ति जताई गयी तथा कुछ भाग में अत्यधिक आवासीय मवन होने के कारण उस भाग को, खसरा मानचित्र में आवेदिका के प्रतिनिधि श्री मेहरबान सिंह राठौर की सहमति से गौके पर पृथक कर दिया। पृथक किये भाग के सम्बन्ध में आवेदिका के प्रतिनिधि श्री मेहरबान सिंह राठौर की सहमति से गौके पर पृथक कर दिया। पृथक किये भाग के सम्बन्ध में आवेदिका के प्रतिनिधि श्री मेहरबान सिंह राठौर की सहमति से गौके पर समाबन्धन के दौरान अपने पत्र दिनांक 23.12.2020 के द्वारा सहमति दी गयी (छायाप्रति संलग्न)। पृथक करने के उपरान्त सीमाबन्धित क्षेत्र के अन्तर्गत पड़ने वाली भूमि का विवरण जिलाधिकारी बागेश्वर के पत्र सं 440/तीस –31/खनन/(2015–16)20–21 दिनांक 08.02.2021 के द्वारा प्राप्त हो गया है, जिसके अनुसार सीमाबन्धित क्षेत्र के अन्तर्गत पड़ने वाली भूमि का विवरण निम्नवत है .–

खसरा विवरण

जोतदार के नाम	राज्य सरकार की मूमि हैं। में			सार्वजनिक उपयोग की भूमि			सम्पूर्ण भूमि का कुल
दर्ज झेणी 1(क) की भूनि हैक में	दर्ज ओणी 7(क)की	क्षेणी 9(3)ग गौचर गैराउजाठविठ की की मूमि हैठ में	নাচৰচগীৰত ভাচ	रौली की भूमि	श्रेणी 10(2) सड़क, मयन रारता की मूगि है0 में	श्रेणी 10(4) चट्टान जी मुगि है0 में	ਸ਼ੇਤਧਾਜ है0 में।
6.584	0.425	-	0.658	0.157	0.017	100000	7.841

सीमाबन्धन के दौरान आवेदक को सभी सीमास्तम्भों के स्थान दिखा/बता दिये गये थे। राजस्व उपनिरीक्षक की आख्या दिनांक दिनांक 28.12.2020 (छायाप्रति संलग्न) में स्पष्ट किया गया है कि आवेदक द्वारा बताये गये सभी सीमास्तम्भों का निर्माण कर लिया गया है। सीमाबन्धित क्षेत्र को खसरा मानचित्र में लाल रंग से दर्शाया गया है।

आवेदक द्वारा निर्धारित सीमाबन्धन शुल्क रू० 20,000.00 (बीस हजार मात्र) के ट्रेजरी वालान की प्रति इस कार्यालय में प्रस्तुत की गयी है (छायाप्रति सलग्न)। सीमाबन्धन प्रतिवेदन मय खसरा मानचित्र की सत्यापित प्रति, राजरव उपनिरीक्षक की आख्या दिनांक दिनांक 23.12.2020 एवं दिनांक 28.12.2020 की छायाप्रति, सीमाबंधित क्षेत्रान्तर्गत पडने वाली भूमि के सम्बन्ध में जिलाधिकारी महोदय बागेश्वर द्वारा उपलब्ध करायी गयी आख्या की प्रति मय संलग्नकों के इस पत्र के साथ संलग्न कर आपके आवश्यक कार्यवाही हेतु सादर प्रेषित है ।

संलग्नक उपरोक्तानुसार

भव उपनिदेशक/भूवैज्ञानिक

आवेदक का नाम- श्रीमती जानकी राठौर पत्नी श्री एम0एस0 राठौर हाउस नं0 348/3, कलावती कालोनी इल्ह्रानी एवं साझेदार मैंठ स्टार माइंस एण्ड मिनरल्स हाउस नंठ 1516 सावित्री कालोनी, हल्द्रनी ग्राम का नाम – करूली, तहसील व जिला – बागेश्वर, सीमााबंधित क्षेत्रफल – 7.841 हैंठ, खनिज का नाम – सोपस्टोन आवेदित क्षेत्र के ग्राम का नाम – करूली, तहसील व जिला – बागेश्वर, मानचित्र का प्रकार :–खसरा मानचित्र, सर्वेक्षण का दिनांक :– 23.12.2020 संदर्भ बिन्दु का विवरण (चित्रण) – खेत नंठ 1052 का कोना

स्टेशन से	स्टेशन तक	दिक्मान	दूरी	कार्नर पिलर	रिसार्क
स्टेशन 1 🛆	R.P. 🗊	323.40'	28.00 위0		R.P. 🗔 स्रेत नंद 1052 का कोना
	पिलर - 1	204 0-00'	51.00 뷔0	पिलर – 1	
	पिलर –2	3400-00	300.00 मीठ	पिलर2	
	पिलर – 3	7°-30'	330.00 뷔0	पिलर –3	
	पिलर 4	15 ⁰ -00'	362.00 मी0	पिलर4	
	पिलर -5	9°00'	242.00 用)0	पिलर5	
	स्टेशन2	350-30	75.00 मी0	'स्टेशन2	
स्टेशन3	स्टेशन-2	2060-00	40.00 मी0	स्टेशन-2	1
	पिलर -6	540-00'	162.00 मी0	पिलर –6	10000000
	पिलर -7	479-45	222.00 मी0	Qet -7	
	पिलर -8	51°-30'	239.00 뷔0	पिलर –8	
	पिलर –9	133 [°] -30'	113.00 मी0	पिलर -9	2.0

सर्वक्षक

मूतत्व एवं खनिकर्म इकाई, उद्योग निदेशालय उत्तराखण्ड, बागेश्वर सीमाबन्धित क्षेत्र की चौहददी निम्नानुसार है :

आवेदक का नाम — श्रीमती जानकी राठौर पत्नी श्री एम0एस0 राठौर हाउस नंठ 346/3, कलावती कालोनी हल्द्वानी एव साझेदार मेंठ स्टार माइंस एण्ड मिनरत्स हाउस नंठ 1516 साथित्री कालोनी, हल्द्वनी,जिला नैनीताल। ग्राम का नाम —करूली, तहसील व जिला — वागेश्वर, सीमाबन्धित क्षेत्रफल — 7.841 हंठ

क्षेत्र के उत्तर में :

पिलर - 3 खेत नंठ 288, पिलर - 4 खेत नंठ 213

, क्षेत्र के दक्षिण में :

पिलर – 9 खेत नं० 1427, पिलर – खेत नं० 1, पिलर – 1696

क्षेत्र के पूरब में :

पिलर – 5 खेत नंग 1302, पिलर – 6 खेत नंग 3520, पिलर – 7 खेत नंग 3562, पिलर – 8 खेत नंग 66

क्षेत्र के पश्चिम में

पिलर -- 1 खेत नंठ 1696, पिलर -- 2 खेत नठ 306,

सर्वसक

उपनि

उपरोक्त सीमाबन्धन से मैं पूर्ण रूप से सहमत हूँ।

पत्रांक- 440 /तीस- 31/रानन/(2015-16)20-21 दिनांक-08/ 02 /2021

उपनिदेशक∕भूवैज्ञानिक, मूतत्व एव खनिकर्म इकाई, जिला टास्क फोर्स, जिला बागेश्वर।

विषय:- जनपद व लहसील बागेखर के ग्राम करूली में आवेदित कुल 28.264 है0 के सापेक्ष 19.879 है0 भूमि में उपखनिज सोपस्टोन का खनन पटटा चाहने हेतु श्रीमती जानकी राठौर पत्नी श्री एम0एस0राठौर हाउस न0 348/3, कलावती कालोझी, हल्द्वानी एवं साझेदार मै0 स्टर माइंस एव गिनरल्स हाउस नम्बर 1518 सावित्री कालोनी, हल्द्वानी के आवेदन पत्र दिनांक 08.12.2015 के कम में उत्तराखण्ड औद्योगिक विकास अनुमाग-1 के कार्यालय झाप संख्या-1130/VII-A-1/2020/1(4)/2020 दिनांक 20 नवम्बर, 2020 द्वारा आशय पत्र पर स्वीकृत खनिज सोपस्टोन खनन पट्टा के सीमांबन्धन के सम्बन्ध में।

उपयुंक्त विषयक अपने पत्र संख्या-504/जि0टा0फो0/गौण खनिज/2020-21 दिनांक 04-01-2021 का संदर्भ ग्रहण करें। प्रकरण में उपजिलाधिकारी,बागेश्वर से जांच करायी गई। उपजिलाधिकारी,बागेश्वर द्वारा अपने पत्र संख्या-964/रीजर-खनन जांच/2020-21, दिनांक 05 फरवरी, 2021 से उपलब्ध करायी गयी आख्या की छायाप्रति संलग्न कर अग्रेत्तार कार्यवाही हेतु प्रेषित की जा रही है। संलग्न-यथोक्त।

> प्रनीरी अधिकारी खनन कृते जिलाधिकारी बागेश्वर।

प्रतिलिपि– निदेशक, मूतत्व एवं खनिकर्म इकाई, उद्योग निदेशालय, उत्तराखण्ड मोपालपानी-देहरादून को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

> प्रिंगारी अधिकारी,खनन कृते जिलाधिकारी बागेश्वर।

अन-कार-करें।

कार्यालय उपजिलाधिकारी, बागेश्वर।

1752- 5-62221

दिनांक 85 फरवरी, 2021

ंख्या-967 /शंहर-खनन जांच/2020-21 सेवा में,

> जिलाधिकारी, बागेश्वर ।

विषय--

जनपद व तहसील बागेश्वर के ग्राम करूली में आवेदित कुल 28.264 है0 के सापेक्ष 19.879 है0 मूमि में उपखनिज सोपस्टोन का खनन पट्टा चाहने हेतु श्रीमती जानकी राठौर पत्नी श्री एम0एस0 राठौर हाजस न0.348/3, कलावती कालोनी, इल्हानी एवं साझेदार मै0 स्टार माइंस एवं मिनरल्स हाउस नम्बर 1516 सावित्री कलोनी, हल्हानी के आवेदन पत्र दिनांक 08.12.2015 के कम में उत्तराखण्ड शासन औद्योगिक विकास अनुमाग–1 के कार्यालय ज्ञाप संख्या–1130/VII-A-1/2020/1(4)/2020 दिनांक 20 नवम्बर, 2020 के द्वारा आशय पत्र पर स्वीकृत खनिज सोपस्टोन खनन पट्टा क्षेत्र के सीमाबन्धन के सम्बन्ध में।

महोदय,

02

=m L

कृपया उपर्युक्त विषयक अपने कार्यालय पृष्ठांकन पत्र संख्या-380/तीस-खनन/2020-21 दिनांक 11.01.2021 का सन्दर्भ ग्रहण करने का कष्ट करें। जिसमें तहसील बागेश्वर के ग्राम करूली में आवेदित कुल 28.264 है0 के सापेक्ष 19.879 है0 मूमि में उपखनिज सोपस्टोन का खनन पढ़टा चाहने हेतु श्रीमती जानकी राठौर पत्नी श्री एम0एस0 राठौर हाउस न0 348/3, कलायती कालोनी, हल्द्वानी एवं साझेदार मै0 स्टार माइंस एवं मिनरल्स हाउस नम्बर 1518 सावित्री कलोनी, इल्द्वानी के आवेदन पत्र दिनांक 08.12.2015 के कम में उत्तराखण्ड शासन औद्योगिक निकास अनुमाय-1 के कार्यालय ज्ञाप संख्या-1130/VII-A-1/2020/1(4)/2020 दिनांक 20 नवम्बर, 2020 के द्वारा आशय पत्र पर स्वीकृत खनिज त्तोपस्टोन खनन पट्टा क्षेत्र के सीमाबन्धन कर आख्या उपलब्ध कराये जाने का उल्लेख किया गया है। प्रकरण में तहसीलदार, बागेश्वर से जांच आख्या प्राप्त की गयी। तहसीलदार, बागेश्वर द्वारा अपनी आख्या निम्नानुसार प्रस्तुत की गयी है-

01. सीमांकित क्षेत्र के अन्तर्गत आये खेतों/खेत नम्बरानों का असल मानचित्र से मिलान कर आवेदित मानचित्र में यथारूप अंकन कर दिया गया है।

खोतवार के	राज्य सरद	धार की भूमि		1	'सार्वजनिक च	पयोग की भूमि	सम्पूर्ण भूमि का
नाम दर्ज श्रेणी 1(क) की मूनि				श्रेणी 10(1)	श्रेणी 10(2)	श्रेणी 10(4)	कुल क्षेत्रफल हैव में।
1(17) पर 121 है0 में।	जोतदार के नाम दर्ज श्रेणी 7(क) की मूमि गैराजाधविध	श्रेणी 9(3) न गौचर गैराजाविंठ की मूमि हैंठ में।	श्रेणी 9(3) व बंधकाठआठ गैसाजाउविठ की मुमि हैठ में।	रौली की मूमि है0 में।	सड़क,भवन, रास्ता की भूनि है0 में।	चट्टान की भूमि है0 में।	
8.584 है0	0,425 80	· · · · · · · · · · · · · · · · · · ·	0.658 80	0.157 80	0.017 80	-	7.841 韵

सीमांकित क्षेत्रान्तर्गत आने वाली भूमि का विवरण निम्न प्रकार है--

इस प्रकार प्रस्तावित सीमांकित क्षेत्रान्तर्गत शूमिवरों के नाम दर्ज श्रेणी 1 (क) की कुल मूमि 6.584 है0, श्रेणी 7 (क) गैठजठवि0 की मूमि 0.425 है0 है। जिसे मानचित्र में लाल स्याही से दर्शाया गया है। भूमिधरों के नाम दर्ज भूमि में वन संरक्षण अधिनियम 1980 के प्राविधान लागू नहीं होते हैं। आवेदित क्षेत्रान्तर्गत राज्य सरकार के स्वामित्व की श्रेणी 9(3) ड 0.858 है0 व सार्वजनिक उपयोग श्रेणी 10 (1) 0.157 है0 एवं श्रेणी 10 (2) की 0.017 है0 कुल 0.174 है0 मूमि आती है। राज्य सरकार व सार्वजनिक उपयोग की भूमि में खनन निर्धिद रहेगा। सीमांकित क्षेत्रान्तर्गत आवेदित क्षेत्र के सापेक्ष 7.841 है0 भूमि आती है। जिसका खसरा एवं मानचित्र संलग्न है।

अतः उक्तानुसार तहसीलदार, बागेश्वर से प्राप्त आख्या अग्रिम कार्यवाही हेतु सादर प्रेषित।

संलग्नकः ययोक्त।

त हार्डीलहार महोइय बागेइवर ।

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क्लेमिं _

(विषय + जनपढ़ च तहलिके नागरवर की हाम- कहकी में अविदित हुल 28764 है0 के सांपेष्ट्रा 19. 8 मही - भ्रीम में उपर्यानेक सीपर्रोन् का खनन पर्या चाहेने हैरु सामेरी (जानकी राहीर पटनी की एम॰ एम॰ राहीर हाइम न ॰ 3 46/3 कवालरी कहोंनी हल्हानें। सन यादनेहार भे॰ स्टार अर्देस एरड जिनल्म हाउम सँ ॰ 1516 साविकी जलीती एवँ याईनेदारे मैं॰ स्तार महेंस एछ मिनरूस ढाउस सँ॰ 1516 सार्कियों फलोनी-हल्दीनी छै साबेदन पक्ष दिमांन्द्र 8.12.2015 है इम में उल्लराखाड प्रासन सीधोणिक तिनाम अनुभाग -1 के जामीलय जाप हैएमा 1130/v11-A-1 /2020/1(4)/20 दिनां के 28 नवाबर 2020 के दारा अवस्य प्रभा पर स्वीहत रवनिज लेपरयेन रवनन पर्य क्रि के जीमातलान के संम्बन्ध में। HERE

अंदिभादुसार सम्बंदित एआवकी की जाँच की गयी जाँच भारवन निर्म हकर है (1) सीकाकित कि छ क काति आये तीते। खेत का बराने का असल मानचित्र हे जिला कर आविदिः माननिम में मधारुप छेठन कर दिमा गया है।

(सिम्नोकि किंक के कल्लारित द्वारि का खसरा विवल मानसिन के कडरार तैयार कर

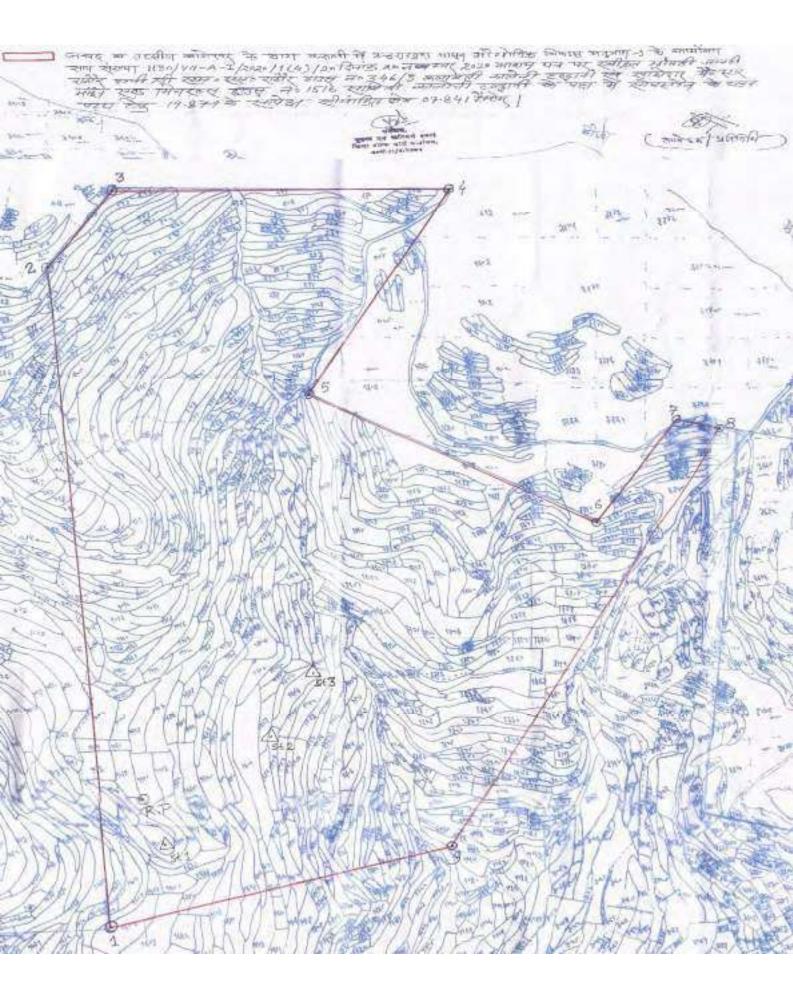
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स्रीमाकित केमकित्तर्ति आने बाली दूर्मिका खित्र ही निम्क म्यार है अगिकारके नाम आमदार के नाम 2017 3P 2017 2017 eeden the र्जिकी 10(4) दर्स क्रिशी दर्स क्रिगी इस क्रिगी 1 कि की श्रमि रही की श्रमि (Asyel TPO 9(3) 3 10() 3 mm 3 20 mm 963)17 10(2) (766) in Shau (GAD (TERT) h 6.58420 0.42520 N 0.65000.1强 0.0语 7.84120 20 M No इस मनार सहलाबित सामंगित इकाअन्मति कीलदारी कैनाम दर्म की की की हि मामि 6.584 है 0 है। एन को ती नि (N2A) की भूमि 0.425 है है। उक्ता भूमि अलचिन में लाल ही ब्लीमी गमी है जील्टर छैनाम इल भ्राम में वन एक्ला कोर्य में लाल ही ब्लीमी गमी है जील्टर छैनाम इल भ्राम में वन एक्ला कोर्य 1980 के सामिधा लाग्न नहीं होते हैं। एवं राष्ट्र सरकार की भूमि में जी 9(3)50 0.658 हैं, है क खिलनिक भूमि केली 100 0.157 हैं केली 10(2) 0.017 हैं कुल 2/2, 0.174 दें ही राज्यसरकार व लहिलानक द्वमि में रवनन निष्टि रहेगा। WN इति स्वार स्वितंकिते क्रिकाकलाति आवेदित स्वेभ के सापेक्ष किंग मार्गस्य 7.841 हैं - मूमि आही है। जिसरा एवं माननिम हैलाउ है। 21 आति बाद भाव आरत्मा एकि ATA 112) 1251 - 1251 - 1200 - 416 (3) 1251 - 1200 - 1200 - 1200 1210 - 1200 - 1200 - 1200 1210 - 1200 - 1200 - 1200 1210 - 1200 1210 - 1200 1210 - 1200 - 1200 1210 - 12 Ect 32 XI 411021 White ATI (543) S-Edt. ASOLIMON A-

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महोदम, त्वा ह किमा। समार किमा। 24/17221 क्षेत्र-तह0/जिला-धार_ाः



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<u>' বের্ম্বা'</u> অণ্ডদ লিগ্ধীন্ন'- রে্টির' নাম্রদ্রীন্ত ফের্র' জিলা--ऱ्याम- कर्रको वांगेववर]

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खसत्त	, रकत	खाता	नाम खात्तेवांज	अमी	क्षेमी	就明 ·	南南	前	अंजी	क्षेणी	विवरण
नम्बर	हेव	संख्या	A 92	. !(#)	7(क)	די(3) די	9(3)3	10(1)	10(2)	10(4)	
906	1025	31	देवरण उगाव	L	1025	-	-	2.5			8
907	+014	57	साहतीमिह आहे	014		1	1.			1	Č.,
900	.090	22	जोगाराभु उगार्क	1000		1	2.15	1	1.1		
909	1025	2,2	-99-	1025	-	1.3	2			19	
910	.020	57	साधोखिदं आहि	.026						-	
911	1013	22	जीगाराम उनाई	1013		6	- 14			5.8	
912	0500	57	लाधोखिंह अग्रि	1050		9	1				
913	· 015-	19	च च की सह के ह्यातसिंह	2101	-					0.1	-
914	1009	19	-20-	009							
915	.000	57	साधीमिद्दं कोई	(000)		- 2.1			2	1	-
916	1035	44	वार का द्वार		-	2	-25.0.	42 M			
917	1024	15	जिलानसिट उगीदे	1024		+	40 J.L	32.4	1	1.1	1
110	010	57	साधोगिह करिडे	010	· 2.		HARD OF HER		cia, che	-	-
919	1005	44	ं जारु का आठ	and the second	<u>11</u> 7%	-	-2001			-	
920	.010	57	साधीमिर आहे	oto		5		2.5		1	
921	.010	57	-05- ·	010				1			
122	2001	44	वक कार मार		-	-	-200			1	
923	1000	25	जिमानसिंह आहि	800			100	-			1.91
924	1013	15-	री	·013							
925	1013	15	20-	:013					÷		
126	· 010	чч	वक कार उसर		-	-	oto.				-
	020	21	जिमानामिहें आहि	020	1						
120	1023	-21	\$°	1023							
129	1023	15-		.023							
30	220.	15-	- 2 2	1025	-						
131	,010	15-	\$2°	.010							103
	.467			387.	025		057	3			

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खसरा नम्बर	, रकवा हे0	चाता संख्या	नाम खातेदार	 1(क)	श्रेणी 7(क)	क्षेत्री 9(3)ग	अंभी 9(3)ड	श्रेमी 10(1)	- श्रेणी 10(2)	श्रेणी- 16(4)	विवरण
932	1005	44	विष् मारु आरु	- 1			1005	+	Mes	10(31	
933	.013	15	(मुमानीसह उम्मेद	1013	5	1.224	1				-
934	1009	15	- ? ~-	.009	1	SP 3		1			
935	1023	57	साधामिहं आर्ड	1.023		1		1			-
936	.021	57	-20-	1021	1	1	-				
937	+0-30)	57	- 2 6	130)	1	2.50	1			
938	1036	15	खिमानसिं चार्गि	.036	1		4				1
939	.070	57	साध्रीमिहं अस्ति	1071							Sec.
940	1006	57	হ্বিত—	1006	1.38	C. Card	4			-	
941	.004	57	- D	1004			1				
942_	.009	57		1009	200 - DO	10.10 M					
943	1034	57	-20	1034	1. 3	3.6		-		1.3	
944	.028	57		.020		- Martin	news Carrier			-	-
945-	1016	57	e de la companya de la	1016	CALC NO.	XIII T				-	
946	.005-	57	रेप-	1005	-	A	1.5				1.2
942	009	57	ক্টি—	.009						1	-
940	200.	57	do	- 500	-		12		-		-
449	1006	44	बाह कह बाह	-	100	and a	006	-	-	3.6	40
950	010	40	2007	-			-	610.			
951	1009	15	जिमानासहे उमावि	1009				2			-
952	.006	15	Ro	.006					1.0		1
953	1005	15	\$°	2001	-4			-			
954	1009	15	- \$\$	1009							
955-	1003	15	20-	003		-					
	010	15	\$°	.010	11						
	and the second second	15	\$°	6001		-					
योग -	405			376			011	018			

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खत्तारा नम्बर	, रकव हेव	चात संख्या		र्स्सी 1(5)	श्रेणी 7(क)	- अेणी 9(3)ंग	श्रेणी 9(3)ত	अंगी 10(1)	- क्रेमी 10(2)	श्रेणी 10(4)	विवरण
950)	1005	- 15	रिमानीसहं उनाई	2001	1						1
959	2001	- 15	- স্টেচ	2005	-	1					-
960	009	15	- 24	1009				1			
961	.035	- 15-	िरमानसिं उमादि	1035	F						-
962	2001	- 21	A DECK CONTRACTOR OF A DECK CONTRACTOR	. 001-	-			120			
963	.005	- 15-	The second	005	-			14	1		
964	ws	15-	x20-	200.4			. 9			17(0) (2) 6 - 1 - 1	
965	.010	15	- vg	1010					1		
966	1006	21	to -	1006		S. mail			1		1
967	.004	15	-29	1004	1. 10			19.1		4.1	-
268	2001	-15-	- পট্ট	2001							
969	.005	15-	Du-	1005	-						
970	1003	15	र्थक्त	103			incrite the		-	_	
971	1006	15-	A - Dar	1006	and a	Rever de					
972	1004	-21	-হুত	004			-			1	18
973	.004	15	20-	.004	1	- 1					113
974	1004	15-	- the	.004	-		4				
975-	1004	15	-20-	1004	-						
776	100 6	15	- dà	.006					1		
and the second se	1025	-21	-20-	1025	-						
178)	600	-21		.000							
79	.004	15	-26-	004				-			
80	.010	15	-20-	010				-			
01	200	11	-Do-	0.07	-						
82	123	-21	-20-	-023							
23	004	15	-tè-	1004						1	-
योग	209			.209						-	-

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खसरा	. रकव	দ্রার	नाम खातेदार 👘 🕄	潮	श्रेणो	क्षेणी	श्रेगी	श्रेणी	श्रेणी	अंगी स्वय	विवरण
नम्बर	ĝa	संख्या		t(香)	7(क)	9(3)ग	9(3)공	10(1)	10(2)	10(4)	
904	1009	15	(23 minter months	59	-	1		-	-	-	
905	800	15	10,65329	1000					_	-	-
906	.003	57	साधीषिहं आडि	003		1.00	1	_		-	-
	.016	57	- 20 -	46						-	-
988	+0-05	57	- 2 0- ,	200	*		and a	-	-	-	
	019	44	নত লাও দ্রন্ত	-			019	10	-		1
990	nos	44	-do-	-	-		2005	1		-	1
991	2001	44		-	-	-	. 105	-	-	-	-
	1009	57		-009		1250	-	-	-		-
993	000	44	والى ولاد ملك		-	1	8001	-	-	1	-
994	Boo .	un	्रामा गल वहा		-	-	800	1	-	-	-
995	.015	15	खिलानसिं कार्य	2010	-	1	1		-	-	-
996	1010	15		010			a marine m			-	-
997	0 10 -	15	-20-	1010	20.00			1	-	-	100
998)	+ 019	15	-20-	.019	1	1	-		-	-	-
999	.015	22	ज्यीमात्राम् सामेर	1015	-			-	-	122	-
1000	.020	22	-05-	020		_	-	-	-	-	-
1001	210+	22	-90-	. 017.	T	and a	112	-	-	1000	-
1002	.044	22	- Eb	1014		1	New -	-	-	-	-
100370	1010	22		.010		-		-	-	-	-
50490		44	जान्ह वत्तर हि	-	-	-	001	-	-		-
005	.011	20	BURNAND BO HECKID	101				-	-	-	-
1006370	.009	20		1009			_	-	-		-
007	.005	20	20-	· 001	-					-	-
10007			-20-	·ofL	1					-	-
	0.013		-25-	1013		-			-	-	-
योग	.204			238) -		.046			_	1

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खसर	. रकवा	साता	नाम खातेदार	्रियो	श्रेणी	前條	श्रेषी	神	翰	अेणी	विवरण
नम्बर	<u></u>	संख्या		<u>(</u> (a)	7(क)	9(3)7	r 9(3)ड	10(1)	10(2)	10(4)	
1010	1 520	20	जुन्हनलाल आहि -	102	1	-		-		-	
1011	10,21	-20	-20-	1021	-	-	-	-			-
	10:023	200	20-0-	1023	-	-	1 4	-			_
10149	0.40	35	हानीसहे आहि	1010	2	-					
10157	0 1006	-		006			La l		_		
101671	010.0	35	20-	:010		_	1	1		6	2
10427	01010	44	নি কাত স্তার্			-	oto				
10457	210.0	35	हागहि आसि	-210.	t						
1046	1009	35		1009	1						
1047	.004	35		004	2 60	1.40	1		-		1
10489	023	39	वन्तीसर वगाव	+023	1		1.0				
1049	1031	13	कैमरसिं वेश्वानीसह	10.31	-			1		18.6	
0201	1000	13	-26- 60	.000			-				mernits)
1051 37	0.010	13	-35-	roto						ľ	-
1052	1026	44	कि बार उपर	-		-	1026				
10537	0.010	02	(माहिं आहे	oto	5			1			
110570		50	- ee-	021		-	- ¹² 9				
10630	.006	44	ৰা কাত জয়ত	-		-	1006				
1107	,010	05-	Bercofile Bind		.010						-
1100	.015	-20	-26	-	1015	-					-
1109	010	44	রি কাত ব্রহাত		-		101D			+	-
	1026	50		026		-			-	-	-
	1026	50	-20-	026				1		-	-
1112_	1021	50	-05-	021						-	-
1113	1020	50	ষ্টত-	020					-	-	-
1114	.029	50	-60	1029					-	-	-
	.428)		0	- 11	.025		.052				

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- खसर नम्बर		खाता संख्या	- A CONTRACTOR OF A CONTRACTOR	一刻		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Shirl Share	Sec. 13.	ोणी	श्रेणी	क्षेणी	दिवरण
(14)	· vos		~ 0	1(T) 9(3	3)ग 9(3	<u>)</u> ड 10	(1)	10(2)	10(4)	191
1142	1000		वन्वीसिंह आहि	:00	-	1	1	-	-	-		
1143	1008	-	क्रियमसिंह नेण्यानीत	COLUMN THREE IS NOT		1	E	-	-	-	-	100
1144	· 011.	13	-20-	101	-	1		-	1	-		192 - E
1145	014	13	-चप्र-	1014			100	-	1			
1146	1009	13	-20-	1069	-				1		1	1
1147	3001	13	20- 200	1000			1		1			23
1140	1011	40	बलवन्त्रसिं कार्यद्र	101			1	1				
1149	.016	40	-20-	016		13						
1150	0008	1 40	- छेरु-	1006	2	1 (45	1		1			13
1151	010	39	नचेराहं आहि	1010	>	1		1	1	1		
1152	.004	40	बलवन्त्र भिटं आहे	1.004	1 103	1	1				13	
1153	-015	40	रे.	1015-	-		annesiate		-			
1154	.011	13	कीएरसिंह आहि	ro11	1	1		1	T		-	
1123	1.020	40	बलवलसिंह आहे	1020			1		T			. 19
1155	.013	40	-20-	013			-	5				
1157	. 010	40	- ক্রুলি	1010			1					14
(Gzu	-240.	44	Duro ter mis	1015	-		4					Litra I
1159	·011	14	-26	1011			4					
1160	·014	50	Unlog Sils	1014								. 1
1	009	50	- তত্তি-	009			1					
	1004	44	विवे कार्व देना व	-	-	-	100 4			1		
163	010	44	वाम्ह भारत वहा	-	-	-	010		-			
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1021	40	री ती		-	-	-	1021				
	2001	13	कियाव सिंह आहे	.005								
	006	13		1006	_	- 2.4						
योग ।	274			239	-	-	.014	.021				

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यसर	. रकवा	याता	नाम खाडोदार	श्रेणी	श्रेणी	11 1 6 6 6 5 1	श्रेणी	श्रेण	1.1	<u>क्</u> रेगी	विवरण
नम्बर 1167	1001	संख्या ५२	- Start	1(क)	7(雨) 9(3)ग	9(3)3	a surely		10(4)	
1160)	1005	57	साधीमिंह क्रांडि	1000	-	1	-	1000	1		
1169	1006	10000	200-	L'OG		-	-	1	1		-
1170	.004	0.01	के कारु उसार		-	-	1004				-
ורוו	1005	57	स्मयोगिर्ध आदि	1005	+		1	1	-		-
1172	1013	SA	-pu-	013	-		1	1 24	1		1
1173	1006	57		1006				1			1
1174	.016	57	-26-	1016							
1175	1010	44	क्रियालमिटं आहि	010		1		1			-
1176	1009	57	जाधोहिंह करि	1.009					-		
1177	1011	£2	-20-	101	1			112.00			
(Drii	1005	57	- do-	-200	-	0	1.	11		in the	
1179	600.	15	किंगनसिंह जनाई	1000)	-	····mages			-	-	and,
1180	1006	15-	- दरिष्	1006	100-00		1				+
1181	1010	15-	-22-	010	1	1					
1182	1010	15	-205-	1010	1.1					Carl .	
11.03	1004	15-	-202-	1004							
104	2401	15	-25-	1015	1				1.1		
1101-	,015	57	साधोहिं करि	1015-	-		1.5				
106	1015	57	- হীড—	015-	-						
107	006	57	-26	006							
100	.009	40	-20ch		-	-	-	-	.009		
18970	.023	44	कि का डर्गे	-	-	-	023		-		
19070	+003 3	305	प्रेमसिंह आहे	103							
19170	1003	30	20-	103							
9220	1005	44	विषे कार आठ	-	-	- 1	-200	-			
योग ।	223			181			032	001	009	10	-

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खसत्त नम्बर	, रच्या हे0	खाता संख्या	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	अंगी 1(क)	अेणी 7(क)) (3)ग	अेणी 9(3)उ	अंगो 10(1)	क्षेणी 10(2)	श्रेगी 10(4)	বিহালা
1194	HO1015	+ 44	वाम्ट नक गह		-	-	-015-	10000			
11957	0 1003	5 30	मिभसिटं काहि	003		1 . 5					1
11967	0 .003	30	0	1007		ALC: N	1				-14
11975	0 .003	30)	20-	100	-						1
11995	1001	44	ৰি কা উয়াত	-	-	-	001				
12007	1 00 1	38)	रिमामिट आरि	1001			1.5	1	1		
12017	1001	30	त्रीमसिंह काहि	1001			1.				
1		1.00	- 27 F			-					
12455	p.ous	5 44	জি জ্বাত স্ত্রাত	-		State .	.045	-			
1246 .	0001	26	हीवानसिंह केर्जेह	Good	1.12	1.00	Conservation of	1		- 36	
247	1006	26		006				1			
1248	1006	26	20-	.006		1		-		1	1.28
1249	1000	26	æ.	600.			www.clinitia	-			
1250	1010	26	म्रीजन	1010	S		and the second	-		-	
1251	2001	26	-20-	200 -	-						1
1252	+0+0	26	- ਦ ਿ	1010	1.00	1000					
125370	1073	44	ত লাভ তলত	-	-	-	·ot3				
1254	1010	44	a) ano 310	-	-		.oto			14	1
1253-	.023	26	क्षेवानसिर्ट उगाई	1023							
1256	1014	26		1014	8 3	1				1	
1257	1004	44	विष कार भार	-		-	1004				
Resel	009	26 1	दीवानसिं साहि	.009					1		
1259	.006	44	कि का उसा 0				506				
26090	.013	26	होवानांस्टे उनाई	1013							-
261	006	26	- 2 0	1006							
262	ivey	44	बेंग कार आग	-	-		1004				
योग	235			129	-	-	106			1	

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खसरा नम्बर	10 10 10 10 10 10 10 10 10 10 10 10 10 1	खात संख्य		श्रेणी	अंणो	श्रेणी	श्रेषी	娳	क्षेणी	श्रेषी	विवरग
1263	1		I D DI D	1(3)		9(3)ग	9(3)ਫ	10(1)	10(2)	10(4)	
1264	.008		05	1000	-	1	-				
1265	- 102	1000	-26-	1026	-	-	-				6 1
1266	1026		20-	026	1	1					-
1267	100	26	20-	1001	1			-	-		
1260	+004		20-	1004	-		1			2.13	
1269	1001	1 26		1004	-			-		11	-
1270	1014	26	20-	1014	-			-			100
1271	+001	4 44	बेरे काण् उम्ह		-		iony		-		
1272	.011	26	दीवानसिं आहि	101	3						10-2-416 1-
12.73	1041	44	ৰ্ণ কাত দ্বাগ		_	_	10-11		1		
1274	1030	26	दीवानसिंह आदि	1030	1	1				2.42	-
1275-	:013	44	कि मा अग	-	-	-	·013				
1276	1000	26	दीवानसिं सगर्द	6001	部項	Contraction of the local division of the loc	-				Tracelle
1277	1004	26	-20-	004	9						
1270	-030	57	लाधारिह कार्र	030						1.1	
1279	-020	52		1020							-
1200	.010	57	-28-	oto						1	-
1281	.013	27	-po-	013					-		
1202		57	-20	1009					1		-
1203	006	43	भाषालायह आहि	.006							
1284	'006	43	20-	1006						1	-
205-	·013 1	57	क्साधोफिंह कर्ताडो	013						-	
12.06	.031	£7	-eu-	1031				1		-	-
207	.014	43	छपालसिंह जारि	1014	1						-
280	030	43		0.30							
योग -	380			352	-		020)				

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खसरा	, रकवा	1 2003	Contraction of the second s	(), 就到	श्रेणी	क्षेणी	श्रेणी	भेणी	श्रेणी	क्षेगी	विवरण
नम्बर	dā -	सख्य	1	(前)		9(3)ग	5(S)6	10(1)	10(2)	10(4)	
1209	1025			1025							
1290	1021	+ 17	The second	10,24	1.24	10.3					
1291	1030	17		1030		in the	1				
1292	1015	17	-20-	210	20 5	1.19		E			
1293	-025	- 43	Zuiosofé znis	250.	-						
1294	019	44	কি সাত সৈত	-	-	-	1019				
1295	1031	57	bientos antes	1037			-			-	
129.6	1001	44	নিচ কা ভাব	-		-	1011				1
1297	.019	26	बीवानसिं आहि	1019		tur tur					
1290)	1009	44	90 MID 3110				1009				-
1299	·oti	26	Ca10168 20115	0.011				-		-	
1300	1020	26	वीवानसिंह आदि	1020	1		1			1	
1301	. 016	26	20-	016		and and	Secondaria			iever a	-
30270	1020	44	P m 360		50° 11		1820			-	Charm State
30370	.001	44	ক্ষি পাও জাত	-	_	-	1001		-		-
04	.023	57	जिसोहिं जाडि	1023	-				1		-
205	10001	62	-25-	000			1			-	
306	.005	57		ast					1	+	
307	003	57	-20	002					-	-	-
1	010	52	-00-	'oto		1			-	-	-
	1013	52	-26	.013	-			-	-	+	-
SI (1997)	010	-52	6	010				-	+	+	-
1000	013	57	5	013					-		-
State 11	009	SA	0	009			-	-	-	-	-
13 .	00	57	-95-	010							-
		59	-25-	.006			-				-
	394			.334		-	060				-

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खसत्त नम्बर	. रकवा हे0	खात संख्य	1. N. N. S. 1007007 1 100-0	अंग च(ड	8. N. S.	णी क)	अेणी 9(3)ग	क्रेगी 9(3)ड	Àणी 10/42	क्षेणी 	क्षेगी	विवरण
1315	-	57	0010	00		*1	0(0)1	0(0)0	10(1)	10(2).	10(4)	
1316	1001	157	0	100	1			1	1			
1317	1015	- 44	A 410 310	-	-	-	-	1015-				
1310	1.024	17	गोयालयिहं आहि	1.02	4	1			1.53			
1319	1005	44	की कार के	-	-	- 1	-	1005-	-	1		
1320	10-06	15	(मुभानसिंह आहि	. 504	G			MC STATE		13.3		-
1321	1006	21	20-1	.006	5					-		-
1322	.010	15	-Ro-	1010)							
1323	1003	44	कि कारु आठ	-	-		-	.003		1.1		
1324	1010	17	गायालमिह आहि	1018	2		11 1					
1325-	-1025	17	- रिफ	260	+							-
1326	1014	17	20-	014	1	1	n i				4.3	
1327	.006	17	the the	006		1		Mark + 20/10/20				
1320	+ 0-t1	20	एग्येक्रहिं के मनसि	-011	Arr. 1	R	No.				-	
329	.013	20	-20-	013	1	1						
1330	.00	20	- For-	-oto	-	T			1		1.0	
1331	1013	44	वम्र वाक क	F	-		-	.013				
1332	.519	52	-साह्योछिट्टें के खि	019		-						
1333	,004	44	वाम्ह गल की	-	-	T	-	1004		1		-
1334	,010	35	बतनमिहं आहि		1010	1				1	-	
335	+014	44	वाम्ह वास्त वस्तु		-	T	-	1674			1	
3367	1.005	44	वास्ट नाक वहा	-	-	1.	-	005-	1	1	-	
337 70	.005	25-	जामसिं आर्थि	-	1005	Ŧ			-		1	
338)A	0006	25	-205-	-	006							
339 770	1006	25	-Øo	-	1006	1				-	1	-
34070	.00 6	44	के जार उगार	-		-	- 1	Cool		-	-	
योग	269			175	027	-		067			6	-

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खसर नम्बर		। खात सख	Tool Sheeps of Alfe	्रेग +(क	Sec. Sec.	100 100 100	200 I DOG	रेगी (१) र	अंगी 1074 म	अंगो प्रथम	श्रेणी	विवरण
1341	1001	Contraction of the local division of the loc	~ · · · ·		00		3)ग 9	(3)로	10(1)	10(2)	10(4)	-
1342		-	10 C C	েল	-			-				
1343			(D)	101	-	1	1				-	-
1344	10.000	1 1 1 2 3	· · · · · · · · · · · · · · · · · · ·	ot	-			14		1		1
1345	100000	4		1.0.0				1				
1346	1000	\$ 43	100	00	8		1					
1347	.01	3 44	विषे कार्य उद्यात	-	-	-	. 6	13				
1345) .010	43	Dauron (DE Bats		2		10					-
1349	1006	17	गाणलयिहे आहे	.001		13 %	- 14		7			
1350	1005	- 17	-2-	1001	+	1		1				-
1351	1001	17	20-0-0-0	100				-	18			
1352	1021	1 43	DAHICOLOE STIS	020	1		- A.					
1353	+014	43	- do-	·014				and a				in the second
1354	10-11	14	Stunn RE 3415	1011	1000							
355	1024	10	कुलतासहं उन्ने चला	48 .02	4							14
355	1024	10	-15	1024		1	1				1	
357	1009	20	जिम्बिमाहि हं आहि	1009		2	0 34			1	-	
350	1009	36	नन्दनसिंह कार्रि	.009			1			-		
359	.006	19	नन्दनसिं कार्व	-	1006		1			-	1	1
360	1013	19	- 20	-	013	2.2				1	1	
361	1020	19	-ઈંક-		020	1						
362	.010	19	-35-	-	1010						1	
363	1015	13	केश्रायसिंह आहि	.015	-				-			-
364A	0.010	13		.010		1	1			1	-	
65	1030	40	वलवन्त्रास्ट आहे	1030		'					-	-
66	.006	40	Ru-	.006				1		-	-	-
योग	.332			:262	.057	-	· 0/	3		-	6	-

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खसत्त नम्बर	रफवा हेरा	खात संख्य	NO.	家	- स्रेजी - र()	श्रेणी	क्षेणी	श्रेणी	क्षेणी	क्षेणी	বিবলে
13673			1 15 15	1(1)	7(\$) 7	9(3)ग	9(3)3	10(1)	10(2)	10(4)	
1368	and the second se	-	0	100	-	-			-		-
13695	0.003	50	-00-	003		+		-	-	-	-
13707	800.0	150	0	1000						-	-
13717	0.020	35	टक्निसहे उसाहि	-020						13	-
1372	.010	10	किन्दनांस्ह उमाह	1010	2	-	- 1	3.7	-		-
1373	1009	17	जीपालसिंह केलक	1009							(
1374	1006	17	20-27	1006	1						1
1375	6000	17	- 1	Good							-
1376	004	17	चैठ-	1004							-
1377	.011	15	जिभानसिंह क्याई	1011							
1378)	102H	17	मीयारतसिं कार्य	1024						- 3	
1379	100 8	17	. Br.	4000							
1380	.006	17	- रहेर , -	2006							
1381	200.	17	- th	1005	-			1.1			
1382	-200.	35	हानसिंह आहि	2001							
1303	.004	35-	-20-	004			1	-	1		
1304	.030	35-	200	030							
1385	.025	35	-202-	:025	-						
13867	010	28	- 200-	'oto						-	-
3005	01010	50	CIDIGE BILS	1010					-	-	-
369	010	50	- 59	010					1	-	-
139000	.004	20	जगडीमाहिं जाहि	1004						-	-
392 70	1006	37	नरामहं कार्द	1006						-	-
39479		44	अगामि देगालामि	1006					-	-	-
39570	0006	44		106		- 11					-
	264			:264					-	-	

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11122.20	7470		- 1.011	E alo	1.4.4	1			1	-	
खसरा नम्बर	रकवा हेव	खात संख्य	in the second seco	· 秋明 1(市)	श्रेणी 7(क)	· 如前 	क्षेणी विस्कृत	श्रेणी	केणी	अँणी	विवरण
1396	.013	-	0.0	1013	1(0)	9(3)ग ⁻	9(3)ৰ	10(1)	10(2)	10(4)	-
1397	1023		01 02 01 2	1023		1.1.1	3	1-			
1398)	1.11	44	C	1005	-		1	-	-	_	i -
139970	1006	36	जन्दनसिहं आहि	.506		-	-	-			
140270	1.	31	दीवानीसहें उमादि	1010							
11	.013	23	जामासहं अगति	1013			1	1			-
1404	1004	23	and the second se	.004		-		1			
1405	7.004	37	नर्राष्ट्रहें आहि	.004			-	1			-
Solune Court	.011	20	जगविकसिंह उन्नरि	1011		-	-	1		-	
	1006	20	- 20-	1006				-			
1405	.006	20	-26-	1006			UI	1	-	-	
1409	600	12	(क्रमलम्प्रिं वे आनाम्द्रिं	Q00.91			4	1		-	-
1410	MO	54	allonbe Dils	1010)			- Castella	dimense la		- Re-	-
141170	1001	54	-90	103	-	-	1000 100 200 1000 100 1000 100				and the second
141270	010	39	वन्त्रे मिट आदि	.010				1	+	-	
141470	.006	40	बलवात्व सिंह आहे	.006		-					-
141570	.003	40	-20-	003			1			-	
1418 70	003	40	-80-	.023			-		-	+	
142370	015	20	-39	1015-					-	+	-
42480	003	40	-Q	003			1.1			-	-
42570	600	40	- Eb-	.00D						-	-
1427 370	010	40	-26-	010					-	-	-
142930	010	15-7	राषानसिं उमादि	oto				.9		-	-
46950.	019		- theat				_	019	1	-	-
47570.	0013	9 +	वनिष्टिंह हम्मि	1001				-		-	-
47670.	003	39	वचे विहे उगार्ष	003						-	
योग • 🎗	27 -			.208 -				019	-	6	

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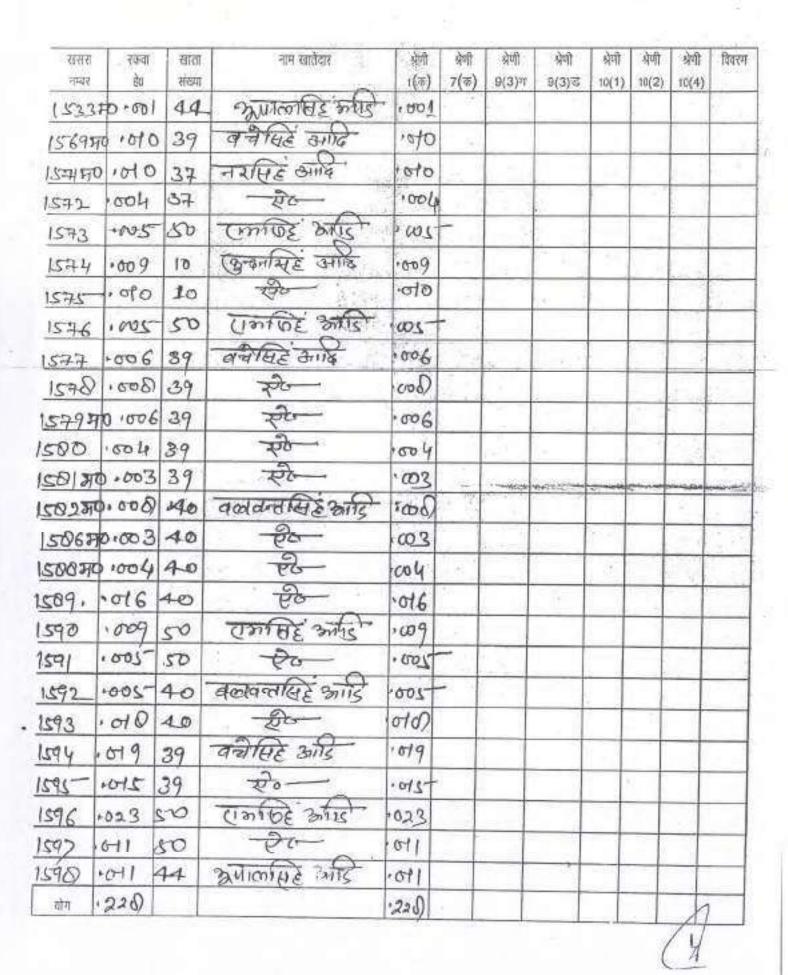
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खस नम्ब	1	0.000	(Fa)	श्रेणी 1(5)	श्रेणी 7(क)	श्रेणी 9(3)ग	위(3)로	अंणी 10(1)	श्रेणी 10(2)	श्रेणी 10(4)	विवरण
1471	mp.01	0 30	- हानसिंह आहि	(010)	t.						
1479	50.00	3 35	- 25-	1003	1.1	1. 23.		1- 1			-
1400	10.008	0 12	जिरारसिंह उमादि	Cool	1						
1401	1010	50		1010							1
1402	- 000	6)44	2 MIONEE 3715	Cor -	100		8.0				-
1403	103	6 41	Dona 1		-	-	-	.036	1		
1404	+002	3 40) - 60 - 1	2-1-	-	-	-	1003		-	1
1405	-016) 50	STATISTICS IN THE	610	-		- 10		-		-
1406	.008	1 50	-6-	600	133	ales.					-
1407	30001	02 1	-35-	1008			1				
1400	1021	AA	2 THOUSE 3115	1021				1		1	-
1409	1011	44	0	1011					1	5.3	
1490	·0/3	40	वल्लनसिंह काहि	1013		-					
1491	1013	02	Umar mus	103	-			-			w(r.250
1492	-014	50	-09-	1014							
1493	.013	35	म्यनसिं कार्ग्य	:013							
1494	-014	50	CIANDE BILS	1014							-
1495	1001	35-	सनसिंह क्रांड	1001							
1496	1028	50	Univé atist	.020							-
1497	1010	50	-99	010		-		-			
1490	isti	50	-69-	1011						1	
1499	(B00.	10	कुन्दनसिं जादि	800.					1	-	
1500	101.0	10	- 2 6	1010				. 1:		1	
1501	1023	37	नरमिहंक्राडि	023						-	
1502	.014	35-	धनमिंह क्षेत्रि	014	12					-	-
1503	, oas	-25	-20-	.005							
योग	329			.290 -			- 10	39		h	-

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Q	I						204 1 - 21 241			(8	21)
खसर	, रकवा		नाम खातेवार	डेग	श्रेणी	श्रेणी	श्रेषी	श्रेणी	सेणी	श्रेमी	विदरग
7.504	1010	संख्या २ - 4-4-	ग्रामानासिंह करीहे	1(3) - 610	7(র)	9(3)T	9(3)ड	10(1)	10(2)	10(4)	
Section of	-1011		- Do-	1011		C al					
1506	1014	-	-90	1014							1.1.5
1507	1006		मर्रास्ट कार्ड	1006	17			1	-	1	
1500	- i		Do	100 5	-	1.0	1	-	-		
1509	.016		चनसिंह आहि	1016				1		2	
1510	2001	1023732	जगह्रेभारिहं आहि	-200			1				
	0.010		-20-	oto							
	10.02	and the second second	त्वनसिंह कारि	1020				5.1			
151550	1.	and the second second	-20-	.010	-						
1516	1009	13	केवारसिंह आहि	1009		1				-	
1517	1009		चनसिंह कराई	1009		14.2		340			
1570	.004	35	-20-	1004			weichiter.				
1519	1005	50	. एमहिं क्रांड	FOS							
1520	1009	SO	-@c	Cool							
1521	1004	50	-32-	1004							
1522	.004	13	क्रेशरमिं आदि	1004			1		1		
1523	.010	50	CINTER' BAR	1010							
SALARO	1.005	13	क्रिश्रमहं आहि	1005	-						
Sasto	1006	13	¥°	1006							
52650	1003	50	फाहिट कोरी	1003							
5275	1004	50	-&-	1004							
52030	.005	50	- w -	1005	-						
53070	1004	50	-20-	· coy							
531570	.009	SD	-99	1009							
532	1006	44	क्र्यानसिंह आहि	1006							
	202			.202						1	

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	खसत	रक्या	व्याता	नाम खातेवार	भेगी	अंगी	भेगी	श्रेणी	क्षेत्री	ल्रेणी	श्रेणी	विवरण
	नम्पर त ५०० त	60	संख्या	0	t(≅)	7(क)	9(3)ग	9(3)ड	10(1)	10(2)	10(4)	4
	1599	-011	44		·011							
	1600	1024	-	केयरमिंह आहि	1024							
	1601	1066		वनिश्वहं क्राइ	1066		1	÷				
	1602	.000		- 70-	900	-	- 10	1				
	1603	1008	39	70-	1000		1	1. 1.5	200			1
	16047	0.015	- 13	क्रिम्स् आहि	1015		13	(B) (f)				
	1607 7	010.9	39	वचेखिं कोई	1010	V		1				
	1600	1010	39	- 25	oto							
	1609 270	1005	54	लालमिर क्रांड	1005	-				1		
	161370	1.02e	35	हार्गपर कार्ड	.020							-
	1614370	.021	35	-25-	1021	-				1		
	1615	.009	-25	eo-	1009				19			
	1616	.049	13	DANIE STR	.049	-		where the street		_		-
	1617	.014	13	£	*ot4	1. (2)						
i.	1610)	.010	13	the c	010)			- C				
	1619	.028	35-	हानसिंह आहे	1026	-			-			
	1620	.006	35-	चेक-	1006				-		14	
	1821	1006	-28	-20-	1006							
	1622	.014	40	बलव-तरिह कार्बि	.014						-	
	1623	025	35	रामिट आहे	025							
	1624	000	80	जगदिष्ट्रानि हें काहि	Boor					-	-	-
	1625-	oto	20	-20-	1010					-		-
-	1. Sold 1007	031	20	-20-	1031				-	-	-	-
-	Contract of the later	009	20	-2¥b-	1009					-		-
		1009	20	- Ro-	1009	-			-	-	-	-
1		0,24	20	-270-	024		-	-			-	-
ſ		456		and the second se	.456					-		-

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सरसरा नम्बर	्र स्कवा हे0	खाता संख्या	नाम खातेदार		स्रेणी 7(क)	क्षेणी 9(3)ग	क्रेणी 9(3)ख	- श्रेणी 10(1)	श्रेणी 10(2)	श्रेणी नवर्यक	विवरग
1630	1016	20	जगदीर्भाषहे आहि	1016	1 ((4)	- 3(3)-1	3(3)/3	infit	10(4).	10(4)	
1631	1009	23	जीगामिट जगहि	.000	1	12 -					1
1632	1009	23	-20-	. 000		12					
1633	1004	23	- हरेन-	1009	1.						
1634	.004	44	की कार मार	-	-	-	.004				-
1635	.019	44	Quientez 3115	.019	1		-				
1636	1010	44	-00-	1 ofc	-		-				
1	0.010	35	हारासिंह कर्ताड !!	1010							
	0.015		20-	.015-	-						
	0.020		LIDIGE STA	102.0		200					6
	15.020	1.41	कुन्दनीयहें आफि	1020	1						
	0.020	and the second se	दानपिंह केनेड	020	1					1.1	
	0.020	100000	20-	- 02.0	>		Martin Station	-			-
1694	.015	44	Surconse' and	+017.	Ť						
1695	.015	44	-99	1015	1			1.5		1	5 m
6967	4025	44	-es-	1025	-					per l	
7017	010.0	31	Gaintle stit	010			-				
702	1009	44	का कार कार	-	1	-	1009			-	
70370	1003	44	वाम्ह वाल वहा	-	-	-	. 003				
705370	1003	44	वार वार वह	-	-	-	1003			1	
706 70	1003	39	BERHIDE Sting		1003						
707	009	39	किन्दनसिं आहि	Ŧ	1009						
7083	1.004	39	- EB-	P	1004						
7097	0003	31	द्वीगर्स्ट अमुलम्बर्टि	.003							
7.24 3	250.9	20	जिर्श्विकसिं आहि	12201	-		-				
72570	:010	20	- 20°	.010							
यौग	323			200	.016		.019			1	

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Annexure- 5



Statutory Alert:

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INDIA NON JUDICIAL

Government of Uttarakhand

e-Stamp

REVADILAE KANSERI I D No 1 126780 Stamo Van Joy Baseshu

Certificate No. IN-UK78803848284406O Certificate Issued Date 20-Aug-2018 07 33 PM Account Reference NONACC (SV)/ uk1267804/ BAGESHWAR/ UK-BG Unique Doc. Reference SUBIN-UKUK126760460944739481311Q Purchased by SHIV SINGH SO TRILOK SINGH TUPER Description of Document Article 4 Affidavit Property Description NA Consideration Price (Rs.) 0 (Zero) First Party SHIV SINGH SO TRILOK SINGH TUPER Second Party NA Stamp Duty Paid By SHIV SINGH SO TRILOK SINGH TUPER Stamp Duty Amount(Rs.) 10 (Ten only) संघना वासिक वानसमात NOTAT NOTARIAL ·····Piease write or type below this line अनापत्ति प्रमाण–पत्र में जितासी पुत्र की जिलाल सिंह जम नयर निवासि पटवारी क्षेत्र- तुपेड, तहसील एवं जूनपद बागेश्वर शपथपूर्वक निम्न कथन करता हूँ कि 1. मैं जनपद बागेश्वर के ग्राम लुप्ते हूं का स्थायी निवासी हूँ । कि मैं ग्राम करूली का काश्तकार हूँ व भूमिधर हूँ । 3. कि मैं ग्राम करूली की अपने हक व कब्जे की भूमि में आप श्रीमती जानकी राठौर पत्नी श्री एम०एस०राठौर म०न० ३४६/३, कलावती कलोनी, नवाबी रोड, हल्द्वानी एवं अन्य साझेदार मै० स्टार माईन एण्ड मिनरल्स, म0स0 1516, सावित्री कलोगी कहानी के पक्ष में खडिया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हूँ ।

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- 4. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करूँगा/करूँगी।
- 5. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतो को सममतल करके देगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।
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कि मैं शपथी उपरोक्त, उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने ज्ञान व विश्वास से आज दिनांक को सत्य होना घोषित करता हूँ।



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हस्ताक्षर शपथी - रियायसिह





INDIA RON JUDICIAL



e-Stamp

CEVADHAR VANSER! DNO 1 22780 Sjomp Vanun/Gageshwar

सत्वमेव जयते

Certificate No.

Certificate Issued Date Account Reference Unique Doc. Reference Purchased by Description of Document Property Description Consideration Price (Rs.)

First Party Second Party Stamp Duty Paid By Stamp Duty Amount(Rs.)

IN-UK798035718530250

- 20-Aug-2018 07:29 PM
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- Article 4 Affidavit
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अनापत्ति प्रमाण-पत्र

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में <u>अभवान सिंह</u> पुत्र <u>श्री माध्ये सिंह</u> उम्र तमिल सिंक्सी ग्राम पटवारी क्षेत्र- तुपेड, तहसील एवं जनुपद बागेश्वर शपथपूर्वक निम्न कथन करता हूँ कि,

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- 1. मैं जनपद बागेश्वर के ग्राम खुलद्री झी....का स्थायी निवासी हूँ ।
- कि मैं ग्राम करूली का काश्तकार हूँ व भूमिधर हूँ ।

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- 4. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करूँगा/करूँगी।
- 5. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतो को सममतल करके देगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।
- कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अनापत्ति आपको दे रहा हूँ/रही हूँ।

कि मैं शपथी उपरोक्त, उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने ज्ञान व विश्वास से आज दिनांक को सत्य होना घोषित करता हूँ।

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Government of Uttarakhand

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Article 4 Affidavit

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Certificate No. Certificate Issued Date Account Reference Unique Doc. Reference Purchased by Description of Document Property Description Consideration Price (Rs.)

First Party Second Party Stamp Duty Paid By Stamp Duty Amount(Rs.)



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में नेताहिट पुत्र आ कल्मावां हिट उम्र नेमरक निवासी ग्राम देवुल पटवारी क्षेत्र- तुपेड, तहसील एवं जनपुद ब्रागेश्वर शपथपूर्वक निम्न कथन करता हूँ कि,

मैं जनपद बागेश्वर के ग्राम <u>उद्दिदेही</u> का स्थायी निवासी हैं ।

2. कि मैं ग्राम करूली का काश्तकार हूँ व भूमिधर हूँ ।

3. कि मैं ग्राम करूली की अपने हक व कब्जे की भूमि में आप श्रीमती जानकी राठौर पत्नी श्री एम0एस0राठौर म0न0 346/3, कलावती कलोनी, नवाबी रोड, हल्द्वानी एवं अन्य साझेदार मैं० स्टार माईन एण्ड मिनरल्स, म0स0 1516, सावित्री कलोनी हल्द्वानी के पक्ष में खडिया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हूँ।

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नि० नेपा रोहितावार शपथी

4. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु दी है और न हैं। मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करूँगा/करूँगी।

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- 5. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को सममतल करके देगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।
- कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अनापत्ति आपको दे रहा हूँ/रही हूँ।

कि मैं शपथी उपरोक्त, उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने ज्ञान व विश्वास से आज दिनांक को सत्य होना घोषित करता हूँ।





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IN-UK795040233285200

NONACC (SV)/ uk1257804/ BAGESHWAR/ UK-BG

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20-Aug-2018 07:47 PM

Article 4 Affidavit

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Certificate No. Certificate Issued Date Account Reference Unique Doc. Reference Purchased by Description of Document Property Description Consideration Price (Rs.)

First Party Second Party Stamp Duty Paid By Stamp Duty Amount(Rs.)



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अनापत्ति प्रमाण-पत्र

भ मोटन सिंह जम राहक (नियासी पटवारी क्षेत्र- तुपेड़, तहसील एवं जनपद बागेश्वर शपथपूर्वक निम्न कथन करता हूँ कि

- कि मैं ग्राम करूली का काश्तकार हूँ व भूमिघर हूँ।
- 3 कि मैं ग्राम करूली की अपने हक व कब्जे की भूभि में आप श्रीमती जानकी राठौर पत्नी श्री एम0एस0राठौर म0न0 346/3, कलावती कलोनी, नवाबी रोड, हल्द्वानी एवं अन्य साझोदार मै० स्टार माईन एण्ड मिनरल्स, म0स0 1516, सावित्री कलोनी हल्द्वानी के पक्ष में खडिया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हूँ।

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 In case of any discrepancy please inform the Compatient Authority.



हस्ताक्षर शपथी

- 4. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करूँगा/करूँगी।
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- 6. कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अनापत्ति आपको दे रहा हूँ/रही हूँ।

कि मैं शपथी उपरोक्त, उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों की अपने ज्ञान व विश्वास से आज दिनांक को सत्य होना घोषित करता हूँ।

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Certificate No.

Purchased by

Certificate Issued Date

Unique Doc. Reference

Description of Document

Consideration Price (Rs.)

Property Description

Account Reference

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Government of Uttarakhand

BHAWAN SINGH SO BISHAN SINGH TUPER

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: Article 4 Affidavit

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BHAWAN SINGH SO BISHAN SINGH TUPER

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(Ten only)

First Party Second Party Stamp Duty Paid By Stamp Duty Amount(Rs.)

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अनापत्ति प्रमाण-पत्र

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में भवान हिंद पुत्र की विद्यान हिंह उम्र व मर्छ निवासी ग्राम हुमेरे पटवारी क्षेत्र— तुपेड़, तहसील एवं ज़नपद बागेश्वर शपधपूर्व@ निम्न कथन करता हूँ कि,

- मैं जनपद बागेश्वर के ग्राम दिपेड का स्थायी निवासी हूँ ।
- कि मैं ग्राम करूली का काश्तकार हूँ व भूमिधर हूँ ।

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- 4. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कसँगा/करूँगी।
- 5. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतो को सममतल करके देगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।
- कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अनापत्ति आपको दे रहा हूँ/रही हूँ।

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कि मैं शपथी उपरोक्त, उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने ज्ञान व विश्वास से आज दिनांक को सत्य होना घोषित करता हूँ।

हस्ताक्षर शपथी nairibe

Sworn and Signed Before me GANESH SINGH MAJILA

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Article 4 Affidavit

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Certificate No.

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अनापत्ति प्रमाण-पन्त्र

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पटवारी क्षेत्र- तुपेड, तहसील एवं जुन्नप्द बागेश्वर शपथपूर्वक निम्न कथन करता हूँ कि,

- मैं जनपद बागेश्वर के ग्राम का किंदी का स्थायी निवासी हूँ।
- कि मैं ग्राम करूली का काश्तकार हूँ व भूमिघर हूँ ।

3. कि मैं ग्राम करूली की अपने हक व कब्जे की मूमि में आप श्रीमती जानकी राठौर पत्नी श्री एन०एस०राठौर म०न० 346/3, कलावत्ती कलोनी, नवाबी रोड, हल्द्वानी एवं अन्य साझेदार मैं० स्टार माईन एण्ड मिनरल्स, म0स0 1516, सावित्री कलोनी डल्हानी के पक्ष में खडिया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हूँ 🖣 CARVIE

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- 4. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करूंगा/करूंगी।
- 5. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को सममतल करके देगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।
- 6. कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अनापत्ति आपको दे रहा हूँ/रही हूँ।

्*न हर्न्स्टा*स होट हस्ताक्षर शपथी

कि मैं शपथी उपरोक्त, उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने ज्ञान व विश्वास से आज दिनांक को सल्य होना घोषित करता हूँ।

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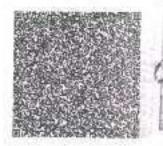


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अनापत्ति प्रमाण-पत्र

में जिस पिष्ट पुत्र के पिष्ट जम्म दि कि जिसे ग्राम के पटवारी क्षेत्र- तुपेड़, तहसील एवं जनमद् बागेश्वर शपथपूर्वक निम्न कथन करता हूँ कि,

1. मैं जनपद बागेश्वर के ग्राम का खायी निवासी हूँ ।

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कि मैं ग्राम करूली का काश्तकार हूँ व भूमिधर हूँ।

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- 4. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करूंगा/करूंगी।

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- 5. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतो को सममतल करके देगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।
- कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अनापत्ति आपको दे रहा हूँ/रही हूँ।

कि मैं शपथी उपरोक्त, उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने ज्ञान व विश्वास से आज दिनांक को सल्य होना घोषित करता हूँ।

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अनापत्ति प्रमाण-पत्र

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- पटवारी क्षेत्र— तुपेड़, तहसील एवं जनपुद बागेश्वर शपथपूर्वक निम्न कथन करता हूँ कि 1. मैं जनपद बागेश्वर के ग्राम करती का स्थायी निवासी हूँ ।
- कि मैं ग्राम करूली का काश्तकार हूँ व भूमिघर हूँ ।
- 3 कि मैं ग्राम करूली की अपने हक व कब्जे की मूमि में आप श्रीमती जानकी राठौर पत्नी श्री
- एम०एस०राठौर म०न० 346/3, कलावती कलोनी, नवाबी रोड, हल्हानी.एवं अन्य साझेदार मै० स्टार माईन एण्ड मिनरल्स, मठस० 1516, साबित्री कलोनी हल्हानी के पक्ष में खडिया खनन हेतु अपनी पूर्ण सहमति प्रदान करता / करती हूँ

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- 4. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करूँगा/करूँगी।
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हस्ताक्षर शपथी

कि मैं शपथी उपरोक्त, उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने ज्ञान व विश्वास से आज दिनांक को सत्य होना घोषित करता हूँ।

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अनापत्ति प्रमाण्=्पत्र

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- कि मैं ग्राम करूली का काश्तकार हूँ व भूमिधर हूँ ।

3. कि मैं ग्राम करूली की अपने हक व कब्जे की भूमि में आप श्रीमती जानकी राठौर पत्नी श्री एम०एस०राठौर म०न० 346/3, कलावती कलोनों, नवाबी रें.ड, हल्द्वानी एवं अन्य साझेदार मैं० स्टार माईन एण्ड मिनरल्स, म०स० 1516, सावित्री कलोनी हल्द्वानी के पक्ष में खडिया खनन हेतु अपनी पूर्ण सहमति प्रयान करता/करती हूँ।

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- 5. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतो को सममतल करके देगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।
- कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अनापत्ति आपको दे रहा हूँ/रही हूँ।

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अनापत्ति प्रमाण-पत्र

में बात्नावन्त सिंह पुत्र दें। जिल्लीका हिंह उम्र नयत्व सिर्वामी याम दो पटवारी क्षेत्र- तुपेड़, तहसील एवं ज़ूनपव बागेश्वर शपथपूर्वक निम्न कथन करता हूँ किं, 📿 ु 1. मैं जनपद बागेश्वर के ग्राम .तर्पाई......का स्थायी निवासी हूँ ।

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- कि मैं ग्राम करूली का काश्तकार हूँ व भूमिघर हूँ ।

3. कि मैं ग्राम करूली की अपने हक व कब्जे की भूमि में आप श्रीमती जानकी राठौर पत्नी श्री एम०एस०राठौर म०न० 346/3, कलावती कलोनी, नवाबी रोड, हल्द्वानी एवं अन्य साझेदार मै० स्टार माईन एण्ड मिनरल्स, म0स0 1516, सावित्री कलोनी हल्हानी के पक्ष में खडिया खनन हेतु अपनी पूर्ण सहमति प्रदान करता / करती हैं । al er d-d

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तार्यन्तर्गाड्

- 4. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करूँगा/करूँगी।
- 5. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतो को सममतल करके देयें। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।
- कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अनापत्ति आपको दे रहा हूँ/रही हूँ।

कि मैं शपथी उपरोक्त, उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने ज्ञान व विश्वास से आज दिनांक को सत्य होना घोषित करता हूँ।





Certificate No.

Purchased by

First Party

Second Party

Certificate Issued Date

Unique Doc. Reference

Description of Document

Consideration Price (Rs.)

Property Description

Stamp Duty Paid By

Stamp Duty Amount(Rs.)

Account Reference

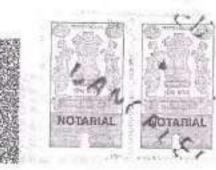
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- : MOHAN SINGH SO MADO SINGH KHULDOARI
- Article 4 Affidavit
- : NA
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अनापत्ति प्रमाण-पत्र

में <u>जोरन प्रवाट</u> पुत्र <u>दी माध्ये पीट</u> उम्र लाग्टर निवासी प्राम पटवारी क्षेत्र- तुपेड, तहसील एवं जनूपद ब्रागेश्वर शपथपूर्वक निम्न कथन करता हूँ कि

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- मैं जनपद बागेश्वर के ग्राम .
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- कि मैं ग्राम करूली का काश्तकार हूँ व भूमिधर हूँ ।

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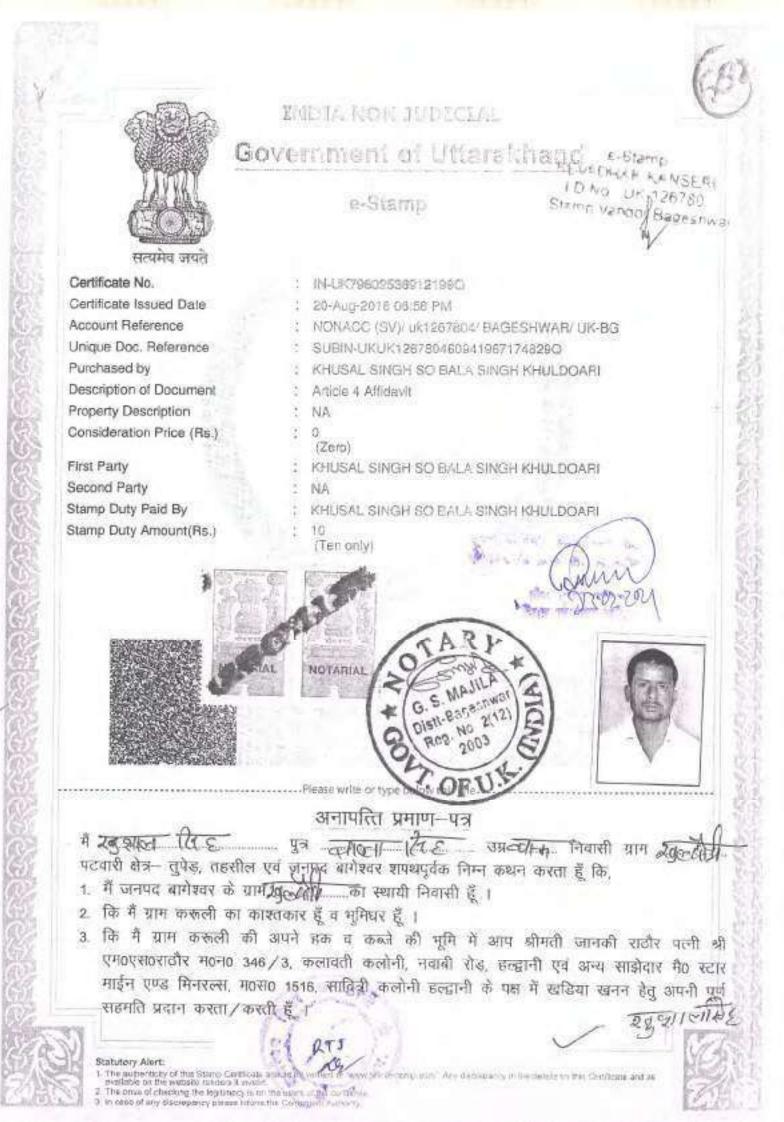
- 4. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करूँगा/करूँगी।
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हस्ताक्षर शपयी

FILETINE

कि मैं शपथी उपरोक्त, उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने ज्ञान व विश्वास से आज दिनांक को सत्य होना घोषित करता हूँ।

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- 4. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करूँगा/करूँगी।
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Certificate No.

Purchased by

First Party

Second Party

Certificate Issued Date

Unique Doc. Reference

Description of Document

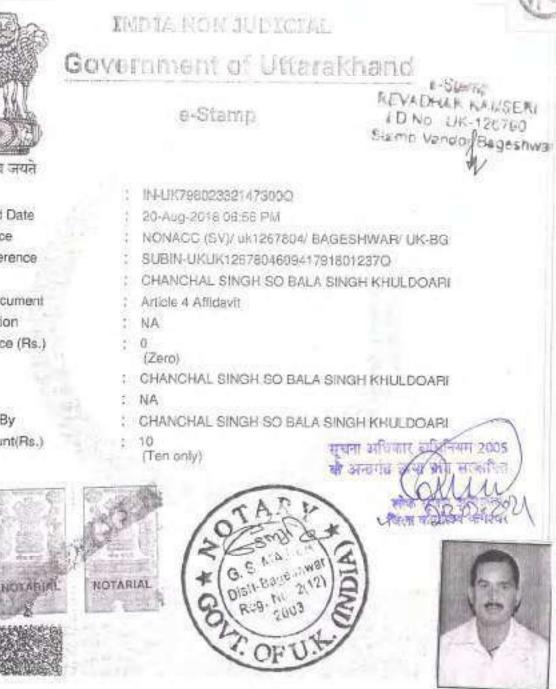
Consideration Price (Rs.)

Property Description

Stamp Duty Paid By

Stamp Duty Amount(Rs.)

Account Reference



अनापत्ति प्रमाण-पत्र

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- 1. मैं जनपद बागेश्वर के ग्रामेख्रिक का स्थायी निवासी हूँ ।
- 2. कि मैं ग्राम करूली का काश्तकार हूँ व भूमिधर हूँ ।

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Statutory Alert:

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- 4. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करूँगा/करूँगी।
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हस्ताक्षर शपथी पना अधिकातात हा 1414 114 20 चन्तराहि Eworn and Eigned Bators ma BANESH SINGH MAJILA NOTARY 25(9))& Dist - Bagestwar (U.K.)



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Government of Uttarakhand

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Certificate No. Certificate Issued Date Account Reference Unique Doc. Reference Purchased by Description of Document **Property Description**

Consideration Price (Rs.)

First Party Second Party Stamp Duty Paid By Stamp Duty Amount(Rs.)

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- Article 4 Affidavit
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अनापत्ति प्रमाण-पत्र

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- मैं जनपद बागेश्वर के ग्राम खुद्ध दो.......का स्थायी निवासी हूँ ।
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- 4. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करूँगा/करूँगी।
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२७३^{२२}। निया में हस्ताक्षर शपश्री

कि मैं शपथी उपरोक्त, उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने ज्ञान व विश्वास से आज दिनांक को सत्य होना घोषित करता हूँ।

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में जानकी राठौर पत्नी श्री– एम० एस० राठौर, उम्र– ययस्क, निवासी– 🕈 संठ 346/3, कलावसी कॉलोनी, नवाबी रोड एवं अन्य साझेदार मैं० स्टार माईन एवं रा मकान संध 1516, सावित्री कॉलोनी हल्द्वानी रापथ पूर्वक निम्न वयान करते हैं--

कि शपथ कर्ता झारा खड़िया खनन पट्टे के जिस आवेदित क्षेत्र में जितने भी भूमिछरो हारा मुझे अनापत्ति दी है, उनके द्वारा किसी अन्य पक्ष में अनापत्ति नहीं दी गयी है।

> J JOIL हरतालर शपथी

कि मैं ज्ञापथी उपरोक्त शपथ पत्र के पैरा 1 के सभी तथ्यों को अपने ज्ञान एवं विश्वास के साथ आज दि० 17.03.2016 को स्थान कचहरी, बागेश्वर में सत्य होना घोषित करता हूँ।

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शएथ-पत्र

कि शपथ कर्ता द्वारा खड़िया खनन पट्टे के लिए आवेदित क्षेत्र में जिन मूमि घरों के मौके पर न होने के कारण अनापत्ति नहीं लिया गया है, उनके मूखण्ड को यद्यपि मेरे द्वारा वृहद खण्ड के रूप में मानचित्र में दिखाया गया है तथापि में उस मूखण्ड में तब तक खनन कार्य नहीं करूंगा जब तक कि वास्तविक काश्तकार द्वारा मेरे पक्ष में आपना अनापत्ति प्रमाण-पत्र निर्गत न कर दिया जाय।

 यह कि शपथ कर्ता अन्यथा की दशा में किसी भी विधि विरूद्ध कार्य के लिए स्वयं उत्तरदायी रहेगा।

> ्मा १२५१ में हस्ताक्षर शपधी

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1351 ton (1855 हरताक्षेत्र शपथी

38 1 8200 आरत TEN RUPEES 8 2 SEP 2015 ATTONY BS. INDIA NDIA NON JUDICIAL NOTARIAL NOTARIAL के अन्तगत जला की सह 79 2005 BRAND UTTARAKHAND 722374 UNCH and अनापत्ति प्रमाण पत्र पत्र हो जिम सिंह ने लाल सिंह खेतवाल निवासी ग्राम, उस्र पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद वागेश्वद्ग शपथ पूर्वेक निम्न कथन करता हूँ कि:-55 appell मैं जनपद बागेश्वर के ग्राम किन्द्र को का स्थाई निवासी हूँ। २. कि मैं ग्राम कराली का काश्तकार हूँ व भूमिषर हूँ। कि मैं प्राम करूली की अपने हक व कर्कों की भूमि आप श्रीमती जानकी राठीर पत्नी श्री एम०एस० राठीर हाउस नं० 346/3 कलावती कॉलोनी नबाबी रोड़ हल्द्वानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाहूँगी रोड़ हल्डानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हूँ। के कि मैंने इससे पूर्व जापके अशिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु तही दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कसँगा/कसँगी। ५. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगें। खनन कार्य पूर्ण होने के वाद हमारा इन खेतों पर मौतिक अधिकार पूर्ववत बना रहेगा। कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्थेच्छा से यह अनापत्ति आपको दे रहा हूँ/रही हूँ। हस्ताक्षर शपक्षे STAT ANE कि में द्रापश उपरोक्त अपथ पत्र के पैरा 1 से 6 तक के सभी तब्यों को अपने हाने व विश्वास से आज दिनांक को स्थान वागेश्वर में सत्य होना घोषित करता हूँ। 211 हस्ताक्षर शपवी

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इस्ताक्षर अपयो

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अनापत्ति प्रमाण पत्र

में उद्येश खेतगाल पुत्र स्तर अहेन्दर सिंह खेतनहन उम्र निवासी ग्राम पटवारी क्षेत्र लुपेड़, तहसील एवं जनपद बागेश्वर् शपथ पूर्वक निम्न कथन करता हूँ कि:that 110 9. मैं जनपद बगेश्वर के ग्राम cantee का स्थाई निवासी हूँ। २. विं मैं ग्राम करूली का काश्तकार हूँ व भूमिधर हूँ। ३. कि मैं ग्राम करूली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस गं० 345/3 कलावती कॉलोनी नवाबी रोड़ हल्हानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स डाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के पास कालाईूंगी रोड़ हल्बानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण क्रमति प्रदान करता/करती हूँ। 🖗 कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं वी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कर्खगा/कर्खगी। ें कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देयें। खनन कार्य पूर्ण होने के बाद डमारा इन खेतों पर मीलिफ अधिकार पूर्वयत बना रहेगा। 4. कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अनापत्ति आपको दे रहा हूँ/रही हूँ। संघना अधिकार माम्ब्रेशवम २०७ भी जानतगंध जाया की में स हस्तासर-शपथी THIS THE • জিলা ব্যাব 南井 2142 उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तस्यों को अपने वान-व विश्वास से आज दिनांक

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को स्थान वागेश्वर में सत्य होना घोषित करता हूं।

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अनापत्ति प्रमाण पत्र

में भी राजेन्द्र खेतवाल पुत्र स्व। पान मिटे खेतवाल उम्र निवासी ग्राम पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद वागेश्रद्भर शपथ पूर्वक निम्न कवन करता हूँ कि:-क्राती 27 9. में जनपद बागेश्वर के ग्राम के उ का स्याई निवासी हैं। २. कि मैं आम करूली का काश्वकार हूँ वे भूमिधर हूँ।

३. कि मैं प्राम करूली की अपने हक व कको की भूमि आप औमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस नं० 346/3 कलावती कॉलोनी नवाबी रोड़ हल्हानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंवर 1516 सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के पास कालाईूंगी रोड़ हल्ढानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हूँ।

थे. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु ुनही दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करूंगा/करूंगी।

9. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतो को समतल करके देगे। खनन कार्य पूर्ण होने के व्यव हमारा इन खेलों पर भौलिक अधिकार पूर्ववत बना रहेगा।

६. कि मैं बिना किसी जोर जबरवस्ती एवं देवाव के अपनी स्वेच्छा से वह अनापत्ति आपको दे रहा हूं/रही हूं। खूचना साधिकार इप्रितित्वन २१० भी कानागत जान हस्ताक्षर शपयी 和空间 राजेन्द्र चेववात किमे 2/48 षत्र के पैरा 1 से 6 तक के समी तथ्यों को अपने ख्याने वीगेश्वर में सत्य होना पोषित करता हूँ। ज्ञान व विश्वास से आज दिनांक हस्तामर शपथी

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SHREES UTTARAKHAND

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अनापत्ति प्रमाण पत्र

व जस्ती चेनी TA Y GOD THE उम्र निवासी ग्राम पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बागेश्वर, शपथ पूर्वक निम्न कर्यन करता हूँ कि-का स्थाई निवासी हूँ। 14

२. कि मैं आम करल्ली का काश्लकार हूँ व भूमिधर हूँ।

३. कि मैं ग्राम करूली की अपने हक व कब्जे की मूमि आप श्रीमती जानकी सठौर पत्नी श्री एम०एस० राठौर हाउस ्रंo 346/3 कलावती कॉलोनी नवाबी रोड़ इल्हानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 3516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाहूँगी रोड़ हल्यानी के पक्ष में खड़िया खनन हेतु अपनी ्रिसहमति प्रदान करता/करती हूँ।

कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष मैं अपनी सहमति खड़िया खनन हेतु ही वी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कलॅगा/कलॅगी।

५. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगे। खनन कार्य पूर्ण होने के थाव डमारा इन खेलों पर मौलिक अधिकार पूर्ववत बना रहेगा।

६. कि मैं बिना फिली जोर जबरदस्ती एवं दवाव के अपनी/स्वेच्छा से यह अनापत्ति आपको दे रहा हूं/रही हूं।

35-61-64

हस्ताक्षर शुप्रमी (happen)

उपरोक्त शपय पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान वागेश्वर में सत्य होना घोषित करता हूं।

हस्ताकर शपथी

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ज्ञान व विश्वास से आज विमांक

CURE TEN RUPEES 2 SEP 2015 INDIA NOTARIAL DIA NON JUDICIAL TARIAL STATE UTTARAKHAND

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अनापत्ति प्रमाण पत्र

#· दर्शना सिंह मोहन। सिह पुत्र पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बागेझ्न्र शपथ पूर्वक निम्न कवन करता हूँ कि:-उम्र निवासी ग्राम 43 में जनपद बागेश्वर के ग्राम कि खुल choch का स्थर्छ निवासी हैं। कि मैं प्राप करूली का काश्तकार हूँ व भूमियर हूँ। . कि मैं ग्राम करूली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर इन्डस ि 346/3 कलायती कॉलोनी नबाबी रोड़ इल्द्रानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जीoजीoआईoसीo स्कूल के पास कालाईूंगी रोड़ हल्द्रानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रवान करता/करती हूँ। थे. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं वी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति यत्र जारी कर्समा/कर्सगी। के कि मेरे खेतों में खनन कार्य बन्द होने के बाव आप मेरे खेतो को समतल करके देगे। खनन कार्य पूर्ण होने के वाद'हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा। 3 से PATHON दे की मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वैच्छा से यह अनापतित आपको दे रहा हूं/रही हूं। net august संचला इत्यांग को 1417 2404 10. 7(122) THE STREET & हस्ताक्षर शपधी THE PIC देरान् रिए A# 2142 उपरोक्त शपथ पत्र के पैरा 1 से-6-तक के सभी तथ्यों को अपने ज्ञान य विश्वास से आज दिनांक को स्थान बागेक्ष्वर में सत्य होना घोषित करता हूँ। SA GANT & PATRIAN LOSING ADVICTOR हस्ताधर शपथी



29AA 722369

अनापत्ति प्रमाण पत्र

में नरेड रिटे पुत्र मोर्डन रिटि पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बागेझ्वर शपथ पूर्वक निम्न कचन करता हूँ कि:-७. मैं जनपद बागेझ्वर के ग्राम करला हूँ कि:-का स्थाई निवासी हूँ।

उम्र निवासी ग्राम

२. कि मैं आम करूली का काश्तकार हूँ व मूमियर हूँ।

雨市 2142

इन्ति व विश्वास से आज विनांव

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२. कि मैं प्राम करती की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठीर पत्नी श्री एमव्यसव राठीर हाउस तूं० 346/3 कलावती कॉलोनी नबाबी रोड़ हल्दानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स डाउस नंबर 1616 सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के पास कालाडूंगी रोड़ हल्खानी के पक्ष में खड़िया खनन हेतु अपनी पूर्व मेहमति प्रवान करता/करती हूँ।

के मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नेमि दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कर्सगा/कर्सगी।

4. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगे। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

ह. कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अस्तपति आपको दे रहा हूँ/रही हूँ।

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हस्ताक्षर शपथी

हस्ताहर शप्रथी

उपरावत राप्त्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान बागेश्वर में सत्य होना घोषित करता हूं।



STRIBUS UTTARAKHAND

席¥ 2148

ज्ञाने व विश्वाल से आज विनांक

-DATHAS

29AA 722368

अनापत्ति प्रमाण पत्र

ACT 明フロノイショ पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद वागेश्वर शपय पूर्वक निम्न कथन करता हूं कि-ত্তৰ निवासी ग्राम 1. मैं जनपव बागेश्वर के ग्राम - कार्यल on an an का स्थाई निवासी हूँ। के मैं ग्राम करक्ली का काश्तकार हूँ व भूमिवर हूँ।

३. कि मैं ग्राम करूली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस ति 346/3 कलावती कॉलोनी नवाबी रोड़ हल्द्रानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मि्नरल्स हाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाढूँगी रोड़ हल्द्रानी के एक में खड़िया खनन हेतु अपनी दूर्ग सहमति प्रदान करता/करती हूं।

थे. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु. नहीं बी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कुर्द्धग्री/कुर्ह्धगी।

्रिति मेरे खेलों में खनन कार्य बन्द होने के बाद आप मेरे खेलों को समतल करको देंगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेलों पर मीलिक अधिकार पूर्ववत बना रहेगा।

हे कि मैं बिना किसी जोर जबरवस्ती एवं दबाव के अपनी स्वेच्छा से यह अनापत्ति आपको दे रहा हूँ/रही हूँ।

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हस्ताक्षर शेवची

उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभो तथ्यों को अपने को स्थान बागेश्वर में सत्य होना घोषित करता हूं।

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29AA 722367

अनापत्ति प्रमाण पत्र

577895165 € मिरेशनाकटे पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बागेज़्ब्र शपय पूर्वक निम्न कथन करता हूँ कि:-ंडस निवासी ग्राम मैं जनपद बागेश्वर के ग्राम का स्थाई निवासी हूँ। Front र. कि मैं ग्राम कस्प्ली का काश्तकार हूँ व भूमिघर हूँ। कि मैं ग्राम करूली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस

10 346/3 कलावती कॉलोनी नवाबी रोड़ हल्छानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स ठाउंस वंचर 1516 लावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाठूँगी रोड़ हल्खानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता∕करती हूँ।

ो ≳कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं?दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कुकेंगा∕कसंगी।

्रकुर्झगा करवनी। के मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगे। खनन कार्य पूर्ण होने के कोर हमारा इन खेतों पर मीलिक अधिकार पूर्ववत बना रहेगा।

वराष्ट्रि कि मैं विना किसी जोर जबरवस्ती एनं दबाव के अपनी खेच्छा से यह अनापतित आपको दे रहा हूँ/रही हूँ।

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तस्ताक्षर शपूर्वा न्गा भिन्द्राहिट.

उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान यागेश्वर में सत्य होना घोषित करता हूँ।

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अनापत्ति प्रमाण पत्र

में भूदे दों गरे दे पुत्र राष्ट्र पुत्र राष्ट्र दे राष्ट्र तिहसील एवं जनपव बागेश्वर शपथ पूर्वक निम्न कयन करता हूँ कि:- ५० के २००० का स्वाई निवासी हूँ। ५० के २००० रे २००० रे २०००

३. कि मैं ग्राम करूली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर छाउस नं० 346/3 कलावती कॉलोनी नयाबी रोड़ हल्द्वानी एवं जन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाईूंगी रोड़ हल्द्वानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रवान करता/करती हूँ।

रू, कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु जेदी दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी बिसेना / कसंगी।

TOWAY SOLUTION

्र कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगें। खनन कार्य पूर्ण होने के अ बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

्रि कि मैं बिना किसी जोर जयरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अनाप्रतित आपको दे रक्ष हूँ/रही हूँ।

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भाषा हमान सम्बी पार्ट्य उन्हें ज सिर्ट

ALLE MEDIC

उपरोक्त शेर्पेंग पत्र के परा 1 से 6 तक के लभी तथ्यों को अपने को स्थान बागेश्वर में सत्य छोना ग्रोबित करता हूं।

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CUCC REES 2 SEP 2015 सहाय INDI NOTARIAL NOTARIAL IDIA NON JUDICIAL STRICT'S UTTARAKHAND 29AA 722365 अनापत्ति प्रमाण पत्र महाना गादासा भारताह हार आप गाल राम हो भारत पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद वागेश्रम्, शपच पूर्वक निम्न कयन करता हूँ कि:-निवासी ग्राम मैं जनपद थागेश्वर के प्राम किस्ति का स्थाई निवासी हूँ।

रे. कि मैं आम करूली का काश्तकार हूँ व भूमिधर हूँ।

कि में 2/42

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तान त विश्वास से आज दिनांव

३. कि मैं ग्राम करूली की अपने हक व करने की मूमि आप श्रीमती जानकी राठीर पत्नी श्री एस०एस० राठीर हाउस नंठ 346/3 कलावती कॉलोनी नवाबी रोड़ हल्ह्यानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जी०जी०जाई०सी० स्कूल के पास कालादूँगी रोड़ हल्ह्यानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रवान करता/करती हूँ।

४. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कलना∕कलेंगी।

२. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतो को समतल करके देगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

के मैं विना किसी जोर जबरदस्ती एवं दबाय के अपनी खेवछा से यह अनापत्ति आपको दे रहा हूँ/रही हूँ।

हस्ताक्षर शपुदी-Premic ONIN

उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान बागेश्वर में सत्य होना घोषित करता हूं।

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म भूमें माता प्रदेश द्या प्रमुख स्ति की रोग पाल लाख उम पटवारी केत्र तुपेड़, तहसील एवं जनपद वागेश्व∧ शपर्थ पूर्वक निस्न कयन करता हूं किः-निवासी ग्राम मैं जनपद बागेश्वर के ग्राम - किर्फुल का स्वाई निवासी हूँ। 90 and all २. कि मैं ग्राम करूली का काश्तकार हूँ व भूमियर हूँ।

है. कि मैं ग्राम करूली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस ने० 346/3 कलावती कॉलोनी नवाबी रोड़ हल्हानी एवं अन्य साझेवार मैंसर्स स्वार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के पास कालाढूँगी रोड़ इल्द्रानी के पक्ष में खड़िया खनन हेतु अपनी एर्ण सहमति प्रवान करता∕करती हूँ।

8 कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं वी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी

🖄 कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतो को समतल करके देंगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेतौं पर मौलिक अधिकार पूर्ववत बना रहेगा। ६ कि मैं बिना किसी जोर जबरदस्डी एवं देवाव के अपनी स्वेच्छा हे रहि अनुपति आपको दे रहा हू/रही हूं। संचना अधिकार हायानियम 2005

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17:31. 4641 (41 किमे २॥ उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने हाने व विश्वस से आज दिनांक को स्थान वागेक्वर में सत्य होना घोषित करता हूँ।

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अनापत्ति प्रमाण पत्र

में तर्ग दिन्दिन्दित्ताल दे त्रिप्त दिने। पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद वागेश्वर शपथ 3. मैं जनपद वागेश्वर के ग्राम 8. कि मैं ग्राम करवली का काश्तवकार है व समिशन है।	पूर्वक निम्न कथन करता हूँ कि:-	-	निवासी ग्राम के रह
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हुः के में प्राम करूली को कार्यचलर हूं 4 भूगवर हूं। ३. कि मैं प्राम करूली की अपने हक व करने की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर संउत्त नें० 346/3 कलावती कॉलोनी नवाबी रोड़ हल्हानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंवर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्ठूल के पास कालाएँगी रोड़ हल्द्वानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हूँ।

हैं, कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नुही दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कर्ल्सा/कर्स्गी।

2. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतो को समतल करके देगें। खनन कार्य पूर्ण होने के नाह हमारा इन खेतों पर मौलिक अधिकार पूर्ववत्त बना रहेगा।

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1911 and उपरोक्त शेपवें पंत्र के पराने को ले तक के सभी तथ्यों को अपने को स्थान वागेश्वर में सल्प होना घोषित करता हूं।

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COURSE ADDRESS

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जनापत्ति प्रमाण पत्र

SIL NIN S-ISTHE अग-रमा क गढााह ॥ स्वय गटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बागेझ्वर शपय पूर्वक निम्न कवन करता हूँ कि:--ত্য निवासी ग्राम मैं जनपद वागेश्वर के ग्राम का रेखे का स्याई निवासी हूँ। 55 0510 हर कि मैं ग्राम करूली का काश्तकार हूँ व मूर्मियर हूँ।

- कि मैं आम करत्ती की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस र्षे ३४६/३ कलावती कॉलोनी नवाबी रोड़ हल्डानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री ळॉलोनी जीवजीवआईवसीव स्कूल के पास कालाहूँगी रोड़ हल्दानी के एक में खड़िया खनन हेतु अपनी प्रथी/संहमति प्रवान करता/करती हूं।

के मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कर्सना/कर्सनी।

2. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतो को समतल करके देगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा। के मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अनापति आपको दे रहा हूँ/रही हू।

सराना करिकार मा के अन्यतन जाया

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उपरोक्त शपच पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान बागेरचर में सत्य होना घोषित करता हूं।

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अनापत्ति प्रमाण पत्र

में हरी पूर्रग लोल पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बागेस्तर शपच पूर ३. मैं जनपद बागेस्तर के जम	म जोयन लाज	তম	निवासी याम
 मैं जनपद बागेश्वर के प्राप्त कि कि जनस्व की जिस्ते के प्राप्त कि कि प्राप्त के प्राप्त कि कि प्राप्त के प्राप्त का स्वारतकार हूँ व मूमिधर हूँ। कि मैं प्राप्त करानी भी जनने की प्राप्त कराने के प्राप्त कराने की प्राप्त कराने के प्राप्त कराने कराने के प्राप्त कराने के प्राप्त कराने के प्राप्त कराने के प्राप्त कराने कराने के प्राप्त कराने के प्राप्त कराने के प्राप्त कराने के प्राप्त कराने करान कराने के प्राप्त कराने के प्राप्त कराने क	The second second second second second	42	of to cal

३. कि मैं ग्राम करूली की जपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर सउस २० 346/3 कतावती कॉलोनी नवाबी रोड़ हल्हानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स झउस नंबर 1916 सावित्री कॉलोनी जी०जी०आई०सी० स्ठूल के पास कालाहूंगी रोड़ हल्हानी के पक्ष में खड़िया खनन हेतु अपनी संस्मति प्रयान करता/करती हूं। कि की करने नर्ज जन्मे के प्राप्त करता/करती हूं।

कि मैंने इससे पूर्य आपके आतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं दी हैं और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कर्छगा/करूंगी।

पर्धि ५. कि मेरे खेती में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगे। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

> संग्रमा कविलागि यहे जन्दारोध सम्ब

दि कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अनाप्रतित आपको दे रहा हूँ/रही हूँ।

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कि मैं देरपद्य इयरोक्त भपय पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान थानेश्वर में सत्य होना घोषित करता हूँ।



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अनापत्ति प्रमाण पत्र

में राष्ट्रीयाल्य	क रामित लिंग	उम्र
पटवारी क्षेत्र तुपेड्, तहसील एवं जनपद बागेझ्वर शपथ	पूर्वक निम्न कचन करता हूँ कि:-	46.0
 मैं जनपद बागेश्वर के ग्राम कर दिल्ली मैं जनपद बागेश्वर के ग्राम कर दिल गरिपट के गरिप	का स्थाई निवासी हूँ।	14 (

नियासी ग्राम

कि मैं ग्राम करूली का काश्तकार हूँ व भूमिवर हूँ।

3. कि मैं ग्राम करतों की अपने हक व करने की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस 346/3 कतावती कॉलोनी नबबी रोड़ इल्हानी एवं अन्य साझेदार मैंसर्स स्टार माइन्स एण्ड मिनरत्स हाउस नंबर 16 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाईूंगी रोड़ हल्हानी के पक्ष में खड़िया खनन हेतु अपनी भूम सरमति प्रदान करता/करती हूं।

कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्धना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कसँगा/कसँगी।

9. कि मेरे खेलों में खनन कार्य बन्द होने के बाद आप मेरे खेलों को समलज करके देंगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेलों पर मौलिक अधिकार पूर्ववत बना रहेगा।

६. कि मैं बिना किसी जोर जबारवस्ती एवं वबाव के अपनी स्वेच्छा से यह अनाप्रति अप्रको दे रहा हूँ/रही हूँ।

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उपरोक्त अपर्थ पत्र के पैरा 1 से 5 तेक के सभी तब्यों को अपने को स्थान बागेश्वर में सत्य होना मोषित करता हूं।

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अनापत्ति प्रमाण पत्र

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पंटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बागेज्यूर शपय पूर्वक निम्न कवन करता हूँ कि:	50 ch 2 (M)	-
 मैं जनपद बागेश्वर के ग्राम की रेख देने कि स्थाई निवासी हूँ। 	and the first	

कि मैं आम करली का काश्तकार हूँ व भूमिधर हूँ।

३. कि मैं ग्राम करती की अपने हक व कब्जे की मूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर ताउस गं० 346/3 कलावती कॉलोनी नवावी रोड़ हल्हानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के पास कालाईूंगी रोड़ हल्खानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रवान करता/करती हैं।

8. कि मैंने इससे पूर्व आपके अतिरिक्त अम्य किसी व्यक्ति या संस्था के पत्त में अपनी सहमति खड़िया खनन हेतु तही वी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कर्लगा/कर्लगी।

🖞 कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेलों पर मीलिक अधिकार पूर्ववत बना रहेगा।

. कि मैं बिना किसी जोर जवरवस्ती एवं दबाव के अपनी खेच्छा से यह अनाप<u>त्ति</u> आपको दे रहा हूँ/रही हूँ।

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को स्थान बागेश्वर में सत्य होना घोषित करता हूँ।

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अनापत्ति प्रमाग पत्र

में भिन्ने तो भिग भाष्य पुत्र के रि लिंग	_{зя}	निवासी ग्राम
बर्टवारी क्षेत्र तुपेड, तहसील एवं जनपद बांगेश्वर शपय पूर्वक निम्न करन करता हूँ कि:-	38	अ.स.स.
9. मैं जनपद बागेश्वर के ग्राम न्ट्रोन्स् त्यां का स्थाई निवासी हूँ। के मैं ग्राम करवली का काशतकार है व घमिधर हैं।	20	

की मैं प्राप्त करली की अपने हक व करने की भूमि आप श्रीमती जानकी राखैर पत्नी श्री एमव्यसव राढीर हाउस 19946/3 कलावती कॉलोनी नवाबी रोड़ इल्ह्रानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआईव्सीव स्कूल के पास कालाहूँगी रोड़ हल्द्रानी के पक्ष में खड़िया खनन हेतु अपनी यूप सहमति प्रदान करता/करती हूं।

४. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पत्र में अपनी सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करूंगा/करूंगी।

५. कि मेरे खेलों में खनन कार्य वन्द होने के वाद आप मेरे खेलो को समलल करके देगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेलों पर मौलिक अधिकार पूर्ववल बना रहेगा।

ह. कि मैं बिना किसी जोर जबरवस्ती एवं बबाव के अपनी स्वेच्छा से यह र्जनापत्ति आपको दे रहा हू/रही हूं।

हस्ताक्षर अपयी मध्य लोग

उपरोंक्त शर्पय पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान वागेश्वर में सत्य होना घोषित करता हूँ।

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पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बागेझ्वर शपथ पूर्वक		-the all
N. में जनपद बागेश्वर के ग्राम द्वार्त्स के ग्राम द्वार्त्स के जान का	का स्याई निवासी हूँ।	

. कि मैं आम करूली का काश्तकार हूँ व भूमिधर हूँ।

कि मैं ग्राम करूली की अपने हक व कब्जे की चूमि आप श्रीमती जानकी राजौर पत्नी श्री एम०एस० रावौर हाउस 0 346/3 कतावती कॉलोनी नबाबी रोड़ हल्हानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरत्स हाउस नंबर 1516 सावित्री कॉलोनी जीव्जीवआईवसीव स्कूल के पास कालाढूंगी रोड़ हल्हानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रवान करता/करती हूँ।

भे. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पत्त में अपनी सहमति खड़िया खनन हेतु नही दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करूंगा/करूंगी।

9. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगें। खनन कार्य पूर्ण होने के बोद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

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हु. कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी खेच्छ से यह अनुप्रवृत्ति जोष्को दे रहा हूं/रही हूं।

कि में दे14थी ज्ञान व विश्वास से आज विज्ञंक किया

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उपरोक्त शपय पत्र के पैरा 1 से 6 तक के सभी तथ्या को अपने को स्थान चांगेश्वर में सत्य होना घोषित करता हूँ।



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29AA 722355

अनापत्ति प्रमाण पत्र

# x71 GT8721 (M 10)	पत्र भार गार्थ	ত্তস	निवासी ग्राम
पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बागेझ्वर शपथ १. मैं जनपद बागेझ्वर के ग्राम कि.स.रि	पूर्वेक निम्न कथन करता हूँ कि:- का स्थाई निवासी हूँ।	39	नेतर हैं।

कि मैं प्राप्त करल्ली का काश्तकार हूँ व भूमिधर हूँ।

3. कि मै ग्राम करूली की अपने हक व करने की भूमि आप श्रीमती जानको राठौर पत्नो श्री एम०एस० राठौर हाउस नं० 346/3 कलावती कॉलोनी नवाबी रोड़ हल्द्वानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स डाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाईूंगी रोड़ हल्द्वानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हूँ।

8. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति वा संस्था के पत्त में अपनी सहमति खड़िया खनन हेतु -नहीं दी है और न ही मैं आपके प्रार्वना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कहेंगा/कहेंगी।

ु_र कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगें। खनन कार्य पूर्ण होने के बाद हनारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

'कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वैच्छा से यह अनापत्ति आत्मको दे रहा हूँ/रही हूँ।

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कि में दीपरी तान य विश्वास से आज/हि

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उपरोक्त वापेश्वर में सूल्य होना घोषित करता हूँ।

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हस्ताक्षर-श्वपथी

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कि में

ज्ञान व विश्वास से आज दिनांव

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मै नगेर रेगे रोगे लगा लगा हुत रिट्रा रेगे जिस तिवासी प्राप्त पटवारी क्षेत्र तुपेड, तहसील एवं जनपद बागेझ्लर शपच पूर्वक निम्न कथन करता हूँ किः- 42 कर (- र्ल्स 9. मैं जनपद बागेस्थर के ग्राम जन-इत्यो क्र स्थाई निवासी हूँ।

अनापत्ति प्रमाण पत्र

२. कि मैं ग्राम कराली का काश्तकार हूँ व मूर्मिधर हूँ।

3. कि मैं प्राम करतली की जपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एमव्पसव राठौर ताउस नंव 346/3 कलावती कॉलोनी नवाबी रोड़ हल्हानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के पास कालाढूंगी रोड़ हल्हानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण लहमति प्रवान करता/करती हूँ।

के कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति वा संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कर्डेगां/कर्डगी।

(NATIONAL) के समतल करके देंगें। खनन कार्य बच्च होने के बाद आप मेरे खेतों को समतल करके देंगें। खनन कार्य पूर्ण होने के AND^{ESTIMATION} ब्रोद्ध हमारा इन खेतों पर मीलिक अधिकार पूर्ववत बना रहेगा।

क्री कि मैं बिना किसी जोर जबरदस्ती एवं दवाव के अपनी खेच्छा से यह अनाप्रस्ति आपको दे रहा हूँ/रही हूँ।

24.76

हल्तासरे शपथी

उपरोक्त शपथ पत्र के परा 1 से 6 तक के सभी तथ्यों को अपने को स्थान यागेश्वर में सत्य हीना घोषित करता हूँ।

हस्तासर शपेथी



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के पर के से 6 तक के सभी तब्यों को अपने

अनापत्ति प्रमाण पत्र

म 43म जिन्दन लाल साह पुन दन ! जन्द लाल सहि उम्र ' निवासी ग्राम पटवारी क्षेत्र तुपेड, तहसील एवं जनपत बागेक्षर शपच पूर्वक निम्न कथन करता हूँ कि:-. मैं जनपद बागेक्षर के ग्राम कर्भरकर की का स्याई निवासी हूँ। की मैं ग्राम करूली का काक्षतकार हूँ व भूमिधर हूँ।

क मैं प्राप्त करत्त्तों की अपने हक व कब्जे की भूमि आप श्रीमती जानको राठौर पत्नी थी एम०एस० राठौर हाउस मैंचे 546/3 कतावती कॉलोनी नवाबी रोड़ हल्हानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1976 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाईूंगी रोड़ हल्हानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सडमति प्रदान करता/करती हूँ

४. कि मैंने इससे पूर्व आपके अतिरिक्त जन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु ,नही दी हैं और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कर्सगा/कर्सगी।

५. कि मेरे खेतों में खनन कार्य चन्द होने के बाद आप मेरे खेतों को समतल करके देंगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

स्वना अधिवार होशिनियम 2005

RYJ

को स्थान बागेश्वर में सत्व होना घीषित करता है।

६. कि मैं विना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अनाप्रस्ति-आएको दे रहा हूँ/रही हूँ।

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अनापत्ति प्रमाण पत्र

म भी गोरिनेन्द्र त्याल झाइ एम रख लो निर्द् लाल साह उम निवासी यान पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बागेज्युद् शपथ पूर्वक निम्न कषन करता हूँ किः-१. मैं जनपद बागेश्वर के प्राम कि दे दे का स्थाई निवासी हैं। कि मैं प्राप्त कराली का काश्लकार हूँ य भूमिधर हूँ।

३. कि मैं ग्राम ऊरली की अपने इक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस भं० 346/3 कतावती कॉलोनी नवाबी रोड़ हल्हानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 साविजी कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाढूँगी रोड़ हल्हानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रवान करता/करती हूं।

ेके मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति वा संस्था के पश्च में अपनी सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कसना/करूँगी।

(4)/कि मेरे खेलों में खनन कार्य बन्द होने के बाद आप मेरे खेलों को समतल करके देगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेलों पर मोलिक अधिकार पूर्ववत बना रहेगा।

को असवगित सा

सूचना झोधकार व्यक्तियम 2005

६. कि मैं बिना किसी जोर जबरदस्ती एवं दबाद के अपनी स्वैच्छा से यह अनापत्ति आपको दे रहा हूँ/रही हूँ।

南市 マ142 ज्ञान व विश्वास से आज़-विलंकि

उपरांचन शर्मय पत्र के पति 1 से 6 तक के सभी तथ्यों की अपने को स्थान यागेक्ष्यर में राज्य होना घोषित करता हूँ।

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अनापत्ति प्रमाण पत्र

में को जिन्द्रों ि दि सिंह पुत्र से त को दोने लिहि उम्र - निवासी ग्राम पटवारी क्षेत्र तुपेड़, तहसील एवं जनपव बागेश्वर शपथ पूर्वक निन्न कयन करता हूँ कि:- Go जानप्ती 3. मैं जनपव बागेश्वर के ग्राम - कर जो का स्थाई निवासी हूँ।

२. कि मैं आम कस्त्ली का काश्तकार हूँ व भूमिघर हूँ।

13. कि मैं प्राप्त करूली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस नं० 346/3 कलावती कॉलोनी नवाबी रोड़ हल्द्यानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआई०सी० स्कूल के पास कालाडूंगी रोड़ हल्द्यानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रवान करता/करती हूं।

अ. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी जन्य को सहमति पत्र जारी करूंगा/करूँमी।

2. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेती को समतल करके देगे। खनन कार्य पूर्ण होने के वाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

कि मैं थिना किसी जोर जयरवस्ती एवं दबाव के अपनी स्वेच्छा से यह अनापति आपको दे रहा हूँ/रही हूँ।

सूचना साथिकार क्यूप्रियम 200 को जामानिक क्रिकी की सालगण हस्तायस-शापयी Marsh 12 15 1415 12.02.202 उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तच्यों को अपने 雨井 2142 ज्ञान व विश्वास से आज दिनींक को स्थान बारेप्रेयर में पत्ने होना घोषित करता है। 2212101018 हस्ताक्षर शपयी 12-9-15



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29AA 722360

अनापत्ति प्रमाण पत्र

मै भू नि मिला चा म्या दि को ८५/ठपुत्र रूखे भी भी हिले ०४.२२ उम्र निवासी ग्राम पटवारी क्षेत्र तुपेड, तहसील एवं जनपद बागेश्वर शपथ पूर्वक निम्न कवन करता हूँ कि:- ५९ ८७.२२ क्रा. में जनपद बगेश्वर के ग्राम का स्वाई निवासी हूँ।

के मैं प्राम करूली का काश्तकार हूँ व भूमियर हूँ।

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जान व विश्वास से आज दिनांव

के मैं ग्राम करत्ती की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस स्वी 346/3 कतावती कॉलोनी नवाबी रोड़ इत्हानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरत्स हाउस नंवर कि सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाढूँमी रोड़ इत्ह्यानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रयान करता/करती हूँ।

3. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्धना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कसँगा/कसँगी।

.४. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतो को समतल करके देगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

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इ. कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वैच्छा से यह अनाप्रस्ति आपको दे रहा हूं/रही हूं म्हूपना शाधिकार व्यक्ति आपको दे रहा हूं/रही हूं

हस्तांधर शपथ

उपरोक्त शपुध पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने हो स्थान योगेश्वर में कुन्य होना घोषित करता हूँ।

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हस्ताहर शपवी

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STRIEUS UTTARAKHAND

29AA 722326

उम्र∕्नीवासी ग्राम

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अनापत्ति प्रमाण पत्र

Gald 14 2 15165 पत्र पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद वागेङ्ग् शपच पूर्वक निम्न कवन करता हूँ किः- मैं जनपद बागेश्वर के ग्राम का स्याई निवासी है।

२. कि मैं ग्राम करल्ली का काश्तकार हूँ व भूमिधर हूँ।

 कि मैं ग्राम करतली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस नं० 346/3 कलावती कॉलोनी नवावी रोड़ इल्डानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स झउस नंबर 1516 सावित्री कॉलोनी जीवनीव्याईव्सीव स्कूल के पास कालाईूंगी सेड़ हल्डानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हूँ।

है. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु रेही दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कर्स्सेग /कर्स्सेगी।

भी मेरे खेतों में खनन कार्य बन्द होने के बाब आप मेरे खेतो को समतल करके देंगें। खनन कार्य पूर्ण होने के B. B. PATHAK बाव हेमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा। Durt, Rayash ver 41. NA 714230

(क) कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेध्छा से यह अनापत्ति आपको दे रहा हूं/रही हूं।

संचाना को बेला के जानवर्गक Man 28-025

AND हस्ताक्षर ज्ञापची

किने द्यापर्धी ज्ञान व विश्वास से आज विनांक

2015

CELIK

उपरोक्त आपंध मंत्र के पैरा 1 से 6 तक के सभी तच्यों को अपने को स्थान बागेश्वर में सत्म होता धोषित करता हूँ।

हस्ताक्षर शपथी



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ज्ञान व विश्वास से आज दिनांक,

B. B. PATHAK

Dist. Burgethwar

Sey. No. 7412-03

29AA 722325

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अनापत्ति प्रमाण पत्र

20/921/25 JA 3-11--F145 उम्र निवासी ग्राम पटवारी क्षेत्र तुपेड़, तंहसील एवं जनपद बागेश्वर शपच पूर्वक निम्न कथन करता हूँ कि:-618 में जनपद बागेश्वर के ग्राम कार्रवर्ष का स्वाई निवासी है। २. कि मैं प्राम करूली का काश्तकार हूँ व भूमिधर हूँ।

३. कि मैं प्राम करूली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस नं० 346/3 कलायती कॉलोनी नवावी रोड़ हल्हानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाहूँगी रोड़ हल्खानी के पत्र में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रयान करता/करती हैं।

थे. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति वा संस्वा के पत्त में अपनी सहमति छड़िया खनन हेतु नडी दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी लसँगा/कर्सगी।

है, कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगें। खनन कार्य पूर्ण होने के वेच हमारा इन खेतों पर मोलिक अधिकार पूर्ववत बना-रहेगा।

ई। कि मैं बिना किसी जोर जबरदस्ती एव<u>ं वबा</u>न के अपनी खेचेका से यह अनापत्ति आपको दे रहा हु/रही हूं। (RNR) 4구너트)

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उपरोक्त शपय पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान भागेश्वर में सत्य होना घोषित करता हूं।

हस्ताक्षर शपथी

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ज्ञान व विश्वास से आणि-किन

B. B. PATHAK

Disit, Augustrate

Reg. Ha. TIT: AT

29AA 722324 ·

अनापत्ति प्रमाण पत्र

में Chundon Singh पुत्र Andon Sing पटवारी क्षेत्र तुपड़, तहसील एवं जनपद याग्नेवर शपथ पूर्वक निन्न कथन करता हू कि:-13 Andown Lingh उम्र निवासी ग्राम मैं जनपद बागेश्वर के ग्राम के रास STEN OTHER का स्थाई नियासी है। २. कि मैं आम करूली का काश्तकार हूँ व भूमिधर हूँ।

३. कि मैं ग्राम कररली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस नंo 346/3 कलावती कॉलोनी नवाबी रोड़ हल्हानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के पास कालाईूंगी रोड़ हल्द्वानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रधान करता/करती हूँ।

थे. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु ही दी है और न ही मैं आपके प्रार्थना पत्र के अश्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र आरी करेगा/करुंगी।

RTI

कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देगे। खनन कार्य पूर्ण होने के बाव हमारा इन खेतों पर मीलिक अधिषद् पूर्वयत बना रहेगा।

हूं//कि मैं विना किसी जोर जब्र्स्वस्ती एवे दबाव के अपनी स्वेच्छा से यह अनापत्ति आपको दे रहा हूं/रही हूं। RE-TI-SUNE

> PATHAK NOVE ALS

हस्ताक्षर शपथी

उपरोक्त शपुब पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान पानेस्वर में संस्थ होना घोषित करता हूँ।

हस्ताक्षर शण्यी



29AA 722323

अनापत्ति प्रमाण पत्र

オ つぼう ふうを निवासी ग्राम 19 101 125 उम्र पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बागेश्वयू शपच पूर्वक निम्न कथन करता हूँ कि:-65 2 00 1 मैं जनपद बागेश्वर के ग्राम on today का स्याई निवासी हैं। २. कि मैं प्राम करूली का काश्तकार हूँ व भूमियर हूँ। 3. कि मैं ग्राम करूली की अपने हक ये कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस नं० 346/3 कलावती कॉलोनी नवाबी रोड़ इल्हानी एवं अन्य साझेवार मैससे स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के पास कालाईूंगी रोड़ हल्खानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हैं। ाक मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नही दी है और न ही मैं आपके प्रार्थना पत्र के अस्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी B. B. PATHAK करूँगा/करूँगी। Dirth. Degestrativ 🔊 कि मेरे खेतों में खनन कार्य <u>ब</u>न्द होने के बाद आप मेरे खेतो को समतल करके देंगें। खनन कार्य पूर्ण होने के Pag. No. 71923054 धुर्दे हमारा इन खेतों पर मीलिक अधिकार पूर्ववत बना रहेगा। ई, कि मैं बिना किसी/जीर जबरदस्ती एवं दबाव के अपनी खेच्छा से यह अनापतित आपको दे रहा हूँ/रही हूँ। व्यन करण 3119244 हरतांशर श कि में उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने 2142 हो स्थान वागेश्वर में सत्य छोना घोषित करता हैं। ज्ञान व विश्वास से आज दिनांक हस्ताक्षर शपयी



29AA 722322

अनापत्ति प्रमाण पत्र

1 गुल्माग/७२	37 martinos	उम्र	निवासी ग्राम
पटवारी क्षेत्र तुपेड़, तहसील एवे जनपद बागेश्वद शप 9. मैं जनपद बागेश्वर के ग्राम व्यत्न रूप २. कि मैं ग्राम करूली का काश्तवार है व शमियर 3	य पूर्वक निम्न कथन करता हूँ कि:- का स्थाई निवासी हूँ।	70	TTY OFLAT

३. कि मैं आम करूली की अपने इक व कब्जे की भूमि आप श्रीमती जानको राठौर पत्नों श्री एम०एस० राठौर हाउस नं० 346/3 कलावती कॉलोनी नवाबी रोड़ हल्खानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाहूँगी रोड़ हल्खानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हूँ।

8. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी उन्होंग/करूंगी।

५. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतो को समतल करके देंगे। खनन कार्य पूर्ण होने के बाद इमारा इन खेतों पर मौक्रिक अधिकार पूर्ववत बना रहेगा।

क मैं बिना किसी ज़ेरे जबरदस्ती पूर्व दवाव के अपनी स्वेच्छा से यह अनापतित आपकों दे रहा हूं/रही हूं।

हस्तावार शपयी mana कि में उपरोवत शपव पत्र के पैरा 1 से 6 तक-के सभी तथ्यों की अपने को स्यान बागेश्वर में सल्प डोमा धोपित करता हूं। ज्ञान व विश्वास से आज दिनांक -21,2091 811 हस्ताक्षर शपथी

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अनापतित प्रमाण पत्र

ATE THE 41MIAL पत्र पटवारी क्षेत्र तुपैड़, तहसील एवं जनपर खगेझार शपथ पूर्वक लिम्न कथन करता हूँ किः-9. मै जनपद बांगेश्वर के प्राम - वन 77 Gal फा स्थाई निवासी हूँ।

 २. कि मैं ग्राम करूली का काश्तकार हूँ व भूमियर हूँ।
 ३. कि मैं ग्राम करूली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस नं० 346/3 कतावती कॉलोनी नवाबी रोड़ हल्द्रानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स डाउस नंबर 1516 सावित्री कॉलोनी जीवजीव्आईवसीव स्कूल के पास कालाहूँगी रोड़ हल्खानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हैं।

8. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्वा के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कलगा/कलगी।

अत्रिक मेरे खेतों में खनन कार्य बन्द होने के बाद आपे मेरे खेतो को समतल करके देंगें। खनन कार्य पूर्ण होने के वर्षे हिसारा इन खेलों पर मौसिक अधिकहर पूर्ववत बना रहेगा।

ित्त में विना किसी जोर जबरहस्ती एवं वनाव के अपनी स्वेच्छा से यह अनापतित आपको वे रहा हूँ/रही हूँ।

हस्ताक्षर शायची

किमे 214 आ उपरोक्त शपथ पत्र के पैरा, 1, से 6 तक के सभी तथ्यों को अपने हान व विश्वास से आज दिनांक 18-9-19 5 को स्वान वारोश्वर में सत्य होना घोषित करता हूँ।

स्तिमिर शपवी

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STRIEDS UTTARAKHAND

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निवासी ग्राम

में / ho/m/~/// पुत्र जनपर यागेश्वर, शपथ पूर्वक निन्न कथन करता हूँ कि 8. में जनपद बागेश्वर के ग्राम के रीली का स्वाई निवासी हैं। २. कि मैं ग्राम करली का काश्तकार हूँ व भूमिघर हूँ।

3. कि मैं प्राम करूली की अपने हक व कब्जे की चूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर/ताउत नं० 346/3 फरायती कॉलोनी नवाबी रोड़ हल्दानी एवं अन्य साझेदार मैंसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाहूँगी रोड़ हल्द्यानी के पक्ष में खड़िया खनन हेतु अपनी जूर्ण सडमति प्रदान करता/करती हूँ।

अनापत्ति प्रमाण पत्र

थू. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कर्कुन्न/कर्समी।

अने के मेरे खेतों में खनन कार्य बन्द होने के बाव आप मेरे खेतो को समतल करके देंगे। खनन कार्य पूर्ण होने के बाब हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

E. कि मैं बिना किसी जोर जबरद्रस्ती एवं दबाव के अपनी खेच्छा से वह अनापत्ति आपको दे रहा हूं/रही हूं।

स्वना वरणिकार 2005 115 के अन्तर्गत जिन्द्र किंत m500 जित्तभूतीयात्तर के

कि मैं दि्र[42] ज्ञान व विश्वास से आज दिनांक हस्ताधार जापची जिन्हों 16

हरताक्षर शपवी

उपरोक्त शपच पत्र में पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान बागेस्वर में सत्य होना बोषित करता हूँ।

REI

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STRIETS UTTARAKHAND

29AA 722378

में जनापत्ति प्रमाण पत्र में जनपद बागेश्वर वर्षाञ्चर व्ययय पूर्वक निम्न कथन करता हूँ कि:-र वे जनपद बागेश्वर के प्राप्त का स्वाई निवासी हूँ। र के मैं प्राप्त करूली का काश्तकार हूँ द शूमियर हूँ। के मैं प्राप्त करूली की अपने हक व कर्कों की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस ने० 346/3 कलावती कॉलोनी नवाबी रोड़ हल्खानी एवं जन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरत्स हाउस नंबर 1516 सायित्री कॉलोनी जी०जी०आई०सी० स्तूल के पास कालाइँगी रोड़ हल्खानी के पक्ष में खड़िया खनन हेतु अपनी

हें. विर्मे मैंने इससे पूर्व आपके अतिरिक्त अन्य किली व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नेही चैंगे है और म ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी वहिंगा/करेंगी।

2: कि मेरे खेतों में खनन कार्य बन्द होने के कद खाय मेरे खेतो को समतल करके देंगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

6. कि मैं बिना किसी और जबस्वस्ती एवं दबाव के अपनी स्वेच्छा से यह अनापति आपको दे रहा हूँ/रही हूँ।

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कि मैं देने 497 गान व विश्वास से आज दिनोर्क

उपरोक्त शपय पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान बागेश्वर में सत्य साँना झैथित करता हूँ।

RTJ

्रहस्तावर शपवी —जन्मी (मि)

हस्ताक्षर शप्रध



STREETS UTTARAKHAND

T STATISTIC IN

29AA 722377

अनापति प्रमाण पत्र

में तुलसी देवी एत्र स्त.भी उमेश सिंह उम्र निवासी ग्राम पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बागेश्वर शपथ पूर्वक निम्न कवन करता हूँ किः- - 35 कस्त्वी ३. मैं जनपद बागेश्वर के ग्राम व्यनस्त्वी का स्थाई निवासी हूँ।

२. कि मैं ग्राम कसली का काश्तकार हूँ व भूमिधर हूँ।

३. कि मैं प्राम करतती की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एमवएसव राठौर हाउस नेव 346/3 कलावती कॉलोनी नवावी रोड़ हल्खानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सापित्री कॉलोनी जीवजीवआईव्सीव स्कूल के पास कालाईूंगी रोड़ हल्द्यानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रवान करता/करती हूँ।

हैं. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संरखा के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं वी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करूंगा/करूंगी।

५. कि मेरे खेतों में खनन कार्य बन्द होने के बाव आप मेरे खेतो को समतल करके देंगे। खनन कार्य पूर्ण होने के बद हमारा इन खेतों पर मौलिक अधिक्रार पूर्व्यत बना रहेगा।

13.02.202

18.9.15

हस्तावर अपसे ग्रावकी देवी

हस्ताक्षर शपधी

नुलमा देव

कि मैं दिपिश कि जे अपने ज्ञान व विश्वास से आज विनांक जिन्दी के स्थान वागेश्वर में सरझ होना पोपित करता हूँ।



29AA 722376

अनापत्ति प्रमाण पत्र

# Elenibz	39 Mainte El	उम्र	निवासी ग्राम
पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बगेश्वर शपथ १/में जनपद बागेश्वर के ग्राम कि राजी	का स्थाई निवासी हैं।	65	mand
🙊 कि मैं ग्राम करल्ली का काश्तकार है व भूमिधर है।	0		

भूमें ग्राम करूली की अपने हक व कर्म्ने की गूमि आप श्रीमती जानकी राठौर पत्नी श्री एस०एस० राठौर हाउस 10,46/3 कतावती कॉलोनी नवाबी रोड़ हल्द्रानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरत्स हाउस नंबर 516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाहूँगी रोड़ हल्द्रानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण संहमति प्रदान करता/करती हूँ।

ें कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या त्तंस्था के पक्ष में जपनी सहमति खड़िया खनन हेतु नहीं वी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करूँगा/करूँगी।

५. कि मेरे खेतों में खनन कार्य बन्द्र होने के बाद आप मेरे खेलों को समतल करके देंगें। खनन कार्य पूर्ण होने के वाद इम्पूस इन खेतों पर मौडि़क अधिकार पूर्ववत बना रहेगा।

6. कि मैं विना किसी जोड़ जयरदस्ती एवं देवाच के अपनी खेच्छा से यह अनापत्ति आएको दे रहा हूँ/रही हूँ।

520V 2142

12-9-15

हस्तावार शपयी

कि मैं वाप प्रति के परा 1 से 6 तक के सभी तथ्यों को अपने ज्ञान व विश्वास से आज दिनाक विभाव की स्थान बागेश्वर में सत्य होना घोषित करता हूँ।

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हस्ताक्षर शपथी 2 Smile

A Long Colorest Window Contraction of the last थायार ज्यासिल ी सारला दिये TEN RUPEES 0 2 SEP 2015 िसन्दर्भव उपते INDIA NOTARIAL NOTARIAL. IDIA NON JUDICIAL

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अनापत्ति प्रमाण पत्र

みをでしいなる म अ ८ ८ ८ ८ पुत्र प्रा हि - प्र पटवारी क्षेत्र तुपेड, तहसील एवं जनपद बागेश्वर शपच यूर्वक निम्न कवन करता हूँ कि:-उम्र निवासी ग्राम मैं जनपव बागेश्वर के ग्राम किस्टियों 71 का स्याई निवासी है। २. कि मैं आम करूली का काश्तकार हूँ व भूमियर हूँ।

 कि मैं ग्राम अरुली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० सठौर हाउस नंo 346/3 कलावती कॉलोनी नवाबी रोड़ हल्डानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 2516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाइँगी रोड़ हल्दानी के पक्ष में खड़िया खनन हेतु अपनी ार्ण,संहमति प्रदान करता/करती हैं।

हें कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु मेही)दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कर्रेणि कर्सनी।

हैं कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगे। खनन कार्य पूर्ण होने के वाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

12,9.15

६. कि मैं थिना किसी और जबरदस्ती एवं देवाय के अपनी रवेच्छा से यह अनापति आपको दे रहा हूं/रही हूं। सूचना अधिकार अधिनेयम 2005 की अन्यगंत जात्री को सरव्यान्त हत्त्वाक्षर शपयी-3216 11 2 Then Soldan र पत्न के पैरा 1 से 6 तक के सभी लच्चों को अपने कि में 2142 ज्ञान व विश्वास से आज विनांक को स्थान बागेश्वर में सल्प होना घोषित करता हूं। हस्ताक्षर शपक्ष

23 **ଅଧ୍ୟାର୍ଟ୍ଟ କ୍**ୟାନ୍ତର सारल (68) EN RUPEES सिल्यमें। तुल्ल राहायक रिजेमिति जन ्रिलिखा कार रोकड INDIA A NON JUDICIAL NOTARIAL NOTARIAL

B. B. PATHAK DIVE, Supported

Reg No 7(12)38

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अनापत्ति प्रमाण पत्र

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5/11/52 Entre निवासी ग्राम लग

पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बाग्रेश्वर शपथ पूर्वक निम्न कवन करता हूँ किः-

3. में जनपद बागेश्वर के ग्राम क hort का स्थाई निवासी है।

कि मैं ग्राम करली का काश्तकार हूँ व भूमिबर हूँ।

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SAMPE PARADE

LOMER BOYCEAU

18-9-15

四年

जान व विश्वास से आज विनांक

TOGINIUE

3. कि मैं ग्राम करूली की अपने हक व कर्ज की मूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर सउस नं० 346/3 कलावली कॉलोनी नवाबी रोड़ हल्हानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के पास कालाडूँगी रोड़ इल्झानी के पक्ष में खड़िया खनन हेतु अपनी र्ण सहमति प्रवान करता/करती हूँ।

कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु मैले दे है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी क्समा/करूंगी।

📶 कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगें। खनन कार्य पूर्ण छोने के र्पूर्व हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

६. कि मै विना किसी जोर जबरदस्ती एवं दबाव के अपनी स्थेच्छा कि सह जनावाँवि आपको दे रहा हूँ/रही हूँ। मचना आधन

हे अन्वगंद

हस्ताह्यर-शपयी

हस्ताक्षर शपथी

उपरोक्त शपुत्र पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्यान यागेश्वर में साथ होना घोषित करता हूँ।

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अनापत्ति प्रमाण पत्र

26 7° नेवासी प्राम 3 Y. Nain Shigh anter Khehwal. ਰਸ਼ पटवारी क्षेत्र तुर्पेंड, तहसील एवं जनपद बाग्नेस्वर शपथ पूर्वक निम्न कथन करता हूँ कि:-का स्थाई निवासी हूँ। २. कि मैं ग्राम करत्ली का काश्तकार हूँ व भूमिधर हूँ। 13. कि मैं आम करूली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राढीर पत्नी श्री एम०एस० राठीर हाउस नं० 346/3 कलावती कॉलोनी नवाबी रोड़ इल्हानी एवं अन्य सांझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के पास कलाडूँगी रोड़ हल्द्रानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रवान करता/करती हैं। ४. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पश्च में अपनी सहमति खड़िया खनन हेत् तेही दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कोर्सेगा/कर्सेगी। B. B. PATHAK 2.1 कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों की समतल करको देगें। खनन कार्य पूर्ण होने के Own Sugerdrivar Rong. 145, 7(12)33 <u>आ</u>र्द/हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा। g/ कि मैं बिना किसी जोर जवरदस्ती एवं तवाव के अपनी स्वेच्छा से यह अनापत्ति आपको दे रहा हूँ/रही हूँ। संपना अधिक dimit हस्ताक्षर शपयी िजास कार्यातन वागमगर 雨井 是/4 di उपरोक्त शपच पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने जान व विश्वास से आज दिनांब को स्थान बागेज्वर में सत्य होना घोषित करता है। BASIANT & PATHAK NA. NOT NOT ADVOCATE हस्ताश्वर शपयी $C \times in$

69 याया सन्यम आरत (७)) कावागार दा ग अंधर सन्दर्भव वश्व लिखाकार राहापक गणानिकारत INDIA Dag 对你会儿们 NOTARIAL NOTARIAL dia non judicial

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अनापत्ति प्रमाण पत्र

721197148 निवासी आम उम्र पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बागेश्वर शपथ पूर्वक निम्न कथन करता हूँ कि:-9. में जनपद बागेश्वर के आम कि रिली का स्याई निवासी हैं। २. कि मैं ग्राम करूली का काश्तकार हूँ व भूमिधर हूँ। के मैं ग्राम करती की अपने इक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउत नं० 346/3 कलावती कॉलोनी नवाबी रोड़ इल्हानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स डाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाइूँगी रोड़ हल्द्वानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हूँ। हु, कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति वा संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु हेई वी है और न ही मैं आपके प्रार्थना पत्र के अस्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कर्रेगे।/कर्स्सी। H. PATHAN 9. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतो को समर्तल करके देगें। खनन कार्य पूर्ण होने के Care areas बोबे हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा। हें. कि मैं बिना किसी जोर जबरदस्ती एवं दवाव के अपनी स्वेच्छा के यहो अनापति आपको दे रहा हूं/रही हूं। দ্বাৰা আগিল के अन्तमन हस्ताक्षर शपयी N (100 Huai उपरोक्त शपथ पत्र के पैस 1 से 6 तक के सभी तथ्यों को अपने कि में को स्थान बागेक्वर में सत्य होना घोषित करता है। हान व विश्वास से आज दिनांक EAGANT & PATHAN NOTNETAD /DG. CE Di Rich Michuma Mi Kit La 16-9.15

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२. कि मैं याम कस्ली का काश्लकार हूँ व भूमिधर हूँ।

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३. कि मैं ग्राम करती की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठीर पत्नी श्री एम०एस० राठीर हाउस नंव 346/3 करतावती कॉलोनी नवाबी रोड़ हल्खानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के पास कालादूँगी रोड़ हल्खानी के पक्ष में खड़िया जनन हेतु अपनी प्रेफे सहमति प्रवान करता/करती हूं।

🛓 🕸 मैंने इससे पूर्व आपके अतिरिक्त जन्य किसी व्यक्ति या संस्था के एक्ष में अपनी सहमति खड़िया खनन हेतु E. B. PATHAK नहीं नी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी Disti, Sigestratt कर्त्त् म/कर्त्तनी। Reg. Ma, 7(1 003/

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👽 ्रीक मेरे खेलों में खनन कार्य बन्द होने के बाद आप मेरे खेलों की समतल करके देंगें। खनन कार्य पूर्ण होने के अंद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा। ६. कि मैं बिना किसी जोर जवरदस्ती एवं दबाव के अच्छी स्वेच्छा से यह अनापत्ति आपको दे रहा हूँ/रही हूँ।

िजाना (सराधीलक)

स्वना क्राध्यम

20) हस्ताक्षर शपथी

उपरोक्त शपय पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान वागेश्वर में सत्य होना घोषित करता हूं।

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अनापरित प्रमाण पत्र

में २१७१ हैं रवेतवाल पुत्र भी ज्याना हूँ कि-पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बागेश्वर शपध पूर्वक निम्न कयन करता हूँ कि-ह. मैं जनपद बागेश्वर के आम जनसत्ती का स्याई निवासी हूँ।

कि मैं ग्राम करूली का काश्तकार हूँ व मुमियर हूँ।

के मैं ग्राम करूली की अपने हक व कर्ब्ज की भूमि आप श्रीमती जानको राठौर पत्नी श्री एम०एस० राठौर हाउस नंद 346/3 कलावती कॉलोनी नवावी रोड़ हल्ढानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाइँगी रोड़ हल्ढानी के पक्ष में खड़िया खनन हेतु अपनी धर्म सडमति प्रदान करता/करती हैं।

8. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं वी है और न ही मैं आपके प्रार्थना पत्र के अस्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र आरीं कहना/कहनी।

कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल कुरके देंगें। खनन कार्य पूर्ण होने के बाक हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

क कि मैं विना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अनापत्ति आपकी दे रहा हूं/रही हूँ।

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उपरोक्त शप्राय पुत्र के परा 1 से 6 तक के सभी तथ्यों को अपने को स्थान चाग्रेश्वर में सब्द कोना घोषित करता हूँ।

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में Chan Chan hing पुत्र Let WJAY buy उम्र 5 नियासी ग्राम पटवारी क्षेत्र तुपेड, तहसील एवं जनपद बांगेखर शपथ पूर्वक निम्न कथन करता हूं कि:-9. मैं जनपद बांगेखर के ग्राम का कारतवार हूँ व भूमिधर हूँ। 2. कि मैं ग्राम कसली का काशतवार हूँ व भूमिधर हूँ। 3. कि मैं ग्राम कसली का काशतवार हूँ व भूमिधर हूँ। 3. कि मैं ग्राम कसली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर काउस नं० 346/3 कलावती कॉलोनी नवाबी रोड़ हल्हानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरत्स हाउस नंवर 1516 सावित्री कॉलोनी जीठजीठआई०सी० स्कूल के पास कालाहूंगी रोड़ हल्ह्यानी के पक्ष में खड़िया खनन हेतु जपनी पूर्ण सहमाते प्रवान करता/करती हूँ। 3. कि मैंने इससे पूर्व आपके आतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु जपनी पूर्ण सहमाते प्रवान करता/करती हूँ। 3. एक मैंने इससे पूर्व आपके आतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु कही ही है और न हा मैं आपके प्रावना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करमा//करमेंग।

💭 कि मेरे खेतों में खनन कार्य वन्द होने के बाद आप मेरे खेतो को समतल करके देंगें। खनन कार्य पूर्ण होने के वाद्र हमारा इन खेतों पर मीलिक अधिकार पूर्ववत बना रहेगा।

. कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी खेच्छा से यह अनापत्ति आपको दे रहा हूं/रही हूँ।

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उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान बगैश्वर में सला होना पोषित करता हूँ।

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पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बागेश्वर शपथ १. मैं जनपद बागेश्वर के ग्राम जन के रिज्यो	पूर्वक निम्न कयन करता हूँ कि:- का स्याई निवासी हूँ।	23	as 2. M
२. कि मैं ग्राम करूली का काश्तकार हूँ व चूमिधर हूँ।	का स्वाइ गिपाला हू।		

 कि मैं प्राम करूली की अपने हक व कब्जे की मूमि आप श्रीमली जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस नं० 346/3 कलावती कोलोनी नवाबी रोड़ हल्ढानी एवं अन्य साझेदार मेसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के पास कलाहूँगी रोड़ हल्हानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रवान करता/करती हूँ।

8. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष मैं अपनी सहमति खड़िया खनन हेतू नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कर्सना/कर्लेगी।

५. कि मेरे खेतों में खनन कार्य बन्द क्षेने के बाद आप मेरे खेतों को समतल करके देंगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेलों पर मौलिक अधिकार पूर्वयत बना रहेगा।

६. कि मैं बिना फिसी जोर जबरवस्ती एवं दबाव के अपनी खेच्छा से यह अनापत्ति आपको दे रहा हूँ/रही हूँ।

কল ব্যটিষ 11410 हस्ताक्षर शपथी Uph-7.48 शीपेय पत्र के पैरों 1 से 6 तक के सभी तथ्यों को अपने उपरोक्त को स्थान बागेश्वर में संख जीना घोषित करता हूं।

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त. में जनपद बागेश्वर के बाम can hoal	का स्याई नियासी हूँ।	

कि मैं आम करल्ली का काश्तकार हूँ व भूमियर हूँ।

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३. कि मैं आम करूली की अपने इक व कब्ने की भूमि आप श्रीमती जानको राठौर पत्नी श्री एम०एस० राठौर हाउस गं० 346/3 कलायती कॉलोनी नथाबी रोड़ हल्हानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाढूँगी रोड़ हल्द्वानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता./करती हूँ।

कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं, दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करनेग/कसँगी।

2. कि मेरे खेतों में खनन कार्य बन्द होने के वाद आप मेरे खेतो को समतल करके देगें। खनन कार्य पूर्ण होने के बावे हमारा इन खेलों पर मौलिक अधिकार पूर्ववत बना रहेगा।

कि मैं बिना किसी और जबरवस्ती एवं दवाव के अपनी खेच्छा से यह अनापत्ति ओएको वे रहा हूं/रही हूँ।

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いたいでは # 5107271200 उम्र निवासी ग्राम पटवारी क्षेत्र तुपैड़, तहसील एवं जनपद बागे वर शपथ पूर्यक निम्न कथन करता हूँ किः-40). मैं जनपद वागेस्वर के माम 🚽 me का स्थाई निवासी हूँ।

२. कि मैं ग्राम करूली का काश्तकार हूँ वे भूमियर हूँ।

 कि मैं ग्राम करूली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस नंo 346/3 कलावती कॉलोनी नवाबी रोड़ हल्हानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के पास कालाकूँगी रोड़ हल्डानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हूँ।

४. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु. नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कर्सना/कर्सनी।

कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगें। खनन कार्य पूर्ण होने के वोबे हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

कि मैं विना किसी जोर जबरदस्ती एवं दबाव के अपनी खेळ्छा से यह अनापहित आपको दे रहा हूँ/रही हूँ।

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उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान बागेश्वर में सत्य होना घोषित करता है।

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अनापत्ति प्रमाण पत्र में अर्भ - गा भा लाभव द पुत्र चेना दा भिन ह ए प्रटवारी क्षेत्र तुपेड, तहसील एवं जनपद बाग्यवर शपथ पूर्वक निम्न कपन करता हू कि:-निवासी ग्राम उझ chize ch 9. मैं जनपद बागेश्वर के ग्राम रेन ग्रेस का स्याई निवासी हूँ। कि मैं प्राप्त करप्ती का काश्तकार है व भूमियर हैं। कि मैं ग्राम करतनी की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस ैं 346/3 कलावती कॉलोनी नबाबी रोड हल्हानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1510 सावित्री जॉलोनी जीवजीवआईवसीव स्कूल के पास कलाढूँगी खेड़ हल्झानी के पक्ष में खड़िया खनन हेत्र अपनी 8. B. PATHAK L'ist. 2006 shwar पूर्ण संसुमति प्रवान करता/करती हूँ। Pra No 7(12)03 & वि/मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु ही है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी हरूगा/कर्खगी। ५. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेती को समतल करके देगें। खनन कार्य पूर्ण होने के वाद हमारा इन खेलों पर मीलिक अधिकार पूर्ववत बना रहेगा। E. कि मैं बिना किसी जोर जबरदस्ती एवं वबाव के अपनी स्वेच्छा से यह अनापत्ति आपको दे रहा हूँ/रही हूँ। aval WWW DO हस्तावर शपथी केम Hual उपरोक्त शएच पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान वागेश्वर में संत्य होना घोषित करतः हैं। ज्ञन व विश्वास से आज दिनांक 222.00 RTJ हस्ताधर शपथी WAR DEF & PATHON AND AN ANTANA Dietter- (diptormine (%) (C) 12.00 18 - 9-15

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(व. कि मैं ग्राम करूली की अपने इक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस ने० 346/3 कलावली कॉलोनी नवाबी रोड़ डल्वानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाडूँगी रोड़ हल्ढानी के पहा में खड़िया खनन हेतु अपनी पूर्ण सहमाते प्रदान करता/करती हूँ।

8. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करूँगा/करूँगी।

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BASANT & PATHER में बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से पड़ अनापति आपको दे रहा हूँ/रही हूँ।

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ाल्डवीखर्थित्र ज्याखिलग वारताक TEN RUPEES चारीच्यार VINTER MASAITE PATHAN MOMINI ABAQUARE state dedata (1) K.) BENC TES NOTARIAL INDIA NOTARIAL INDIA NONJUDIC

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1323-494 AC निवासी ग्राम तम पटवारी क्षेत्र तुपेड, तहसील एवं जनपद बागेञ्चर शपच पूर्वक निम्न कथन करता हूँ कि:-

 मैं जनपद बागेश्वर के ग्राम का उत्त उद्दी का स्वाई निवासी हैं।

कि मैं प्राप्त करल्ली का काश्तकार हूँ व भूमिधर हूं।

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है है, कि मैं आम करूली की अपने रुक व करने की मूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस 🔄 🐳 346/3 कलावती कॉलोनी नवाबी रोड़ इल्हानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंधर 1516 सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के पास कालाईूंगी रोड़ हल्द्वामी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रवान करता/करती हूँ।

थे. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अस्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कर्खेगा/कर्खगी।

५. कि मेरे खेतों में खनन कार्य वन्द्र होने के वाद आप मेरे खेतों को समतल करके देगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

द. कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से पुष्ठ अनापति आपको दे रहा हूँ/रही हूँ। संचना अधिकार PT 2005 को अन्तर्गत जाया था। हस्ताक्षर शपथी र्गता करिय Et.K. अपरोमन उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने कि मै guai ज्ञान व विश्वास से आज दिनांक को स्थान जारोश्वर में सत्य होना धोषित करता हूँ। 056-16 हत्ताक्षर शपथी

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क्षारजाय वर्ष ज्यायिल ULCO (CAY TEN. . .RU Heading Track INDIA वित्रकार सटालक mur? NOTARIAL - NOTARIAL INDIA NON JUDICIAL STRUETS UTTARAKHAND 29AA 722340 pair अनापत्ति प्रमाण पत्र AR A 414 148 17 - FG उम्र 70 निवासी ग्राम्के कर्ज िंग्टवेरी क्षेत्र तुपैड़, तएसील एवं जनपद बाग्रेश्वर शपय पूर्वक निम्न दत्वन करता हूँ कि:-9. में जनपद बागेश्वर के ग्राम कारक की का स्याई निवासी हैं। रि कि में ग्राम करतती का काश्तववार हूँ व भूमियर हूँ। हुहोंगे/ मैं ग्राम करत्ली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस 623 ुर्वे, 346/3 कलावली कॉलोनी नवाबी रोड़ हल्हानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स डाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के पास कालाइँगी रोड़ हल्खानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हूँ। . कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपने। सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारों करेंगा/करुंगी। 2. कि मेरे खैतों में खनन कार्य बन्द होने के बाद आप मेरे खैतों की र. ततल करके देंगें। खनन कार्य पूर्ण होने के वाव हमारा इन खेलों पर मौलिक अधिकार पूर्ववत बना रहेगा। कि मैं बिना किसी जौर जबरदस्ती एवं दबाव के अपनी खेवझ से यह अन्यपति आपको दे रहा हूं/रही हूं/ मचना आधिकार अ Steril Run A STRUTTLE B इस्ताक्षर शपक्ष alar 雨光、パクロ उपरोक्त शपय पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने ज्ञान व विश्वास / आज दिनांक को स्थान बागेश्वर में सत्य होना घोषित करता हूं। 10.11: MILLS PATHON इस्ताक्षर प्रपर्थ - l- R

6) य प्रस्टरन 2160 थारल (८१) TEN RUPEES 12 13020 R 32819 तियाकार सहायक फोट्यायाजाता INDIA NOTARIAL IDIA NON JUDICIAL NOTARIAL उत्तराखण्ड UTTARAKHAND 29AA 722311 अनापत्ति प्रमाण पत्र * रेपती देवी 19 chall उम्र निवासी ग्राम पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बागेश्वर शपथ पूर्वक मिन्न कथन करता हूँ कि:-). मैं जनपद बागेश्वर के ग्राम जगगरका का स्थाई निवासी हूँ। 70२. कि मैं याम करूली का काश्तरकार हूँ व भूमिवर हूँ।

े ३. कि मैं आम कररली की अपने हक व कब्जे की भूमि आप श्रीमत्ती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस नंे 346/3 कलावली कॉलोनी नवाबी रोड़ हल्खानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआईव्सीव स्कूल के पास कालाढूँगी रोड़ हल्दानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण संहमति प्रदान करता/करती हैं।

8. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र आरी कर्खेगा/कर्सेगी।

र कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतो को समतल करके देंगे। खनन कार्य पूर्ण होने के बाद्ध हेमारा इन खेलों पर मौलिक अधिकार पूर्ववत बना रहेगा।

के अन्यगढ जेला जोगी साला कर

D. PATHAX 4. विं में बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अन्यपत्ति आएको दे रहा हूँ/रही हूँ। Buniestreet.I सुचना अधिवार इस्ट्रीव्यम १९०१

कि में द्राय व्य तान व विश्वास से आज दिनांक

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Stan With the 17-31,150 उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान बागेश्वर में सत्य होना बोषित करता हूं।

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अनापत्ति प्रमाण पत्र

में श्री युवीन रिनेह के भूग दीयान दिन निवासी ग्राम उझ पटवारी क्षेत्र तुपेड, तहसील एवं जनपद वागेव्यु शपथ पूर्वक निम्न कयेन करता हूँ किः 48 Charles मैं जनपद बागेश्वर के ग्राम Jun hori का स्थाई निवासी है।

२. कि मैं ग्राम करूली का काश्तकार हूँ व भूमिधर हूँ।

किमें प्रवति

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३. कि मैं ग्राम करूली की अपने हक व कर्कों की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एमव्यसव राठौर हाउस गं० 346/3 कतावती कॉलोनी नवावी रोड़ हल्डानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाहूँगी रोड़ इल्ह्यानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हैं।

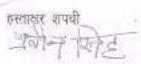
४. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेत् नहीं वी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी जन्म को सहमति पत्र जारी कर्लगा/कर्लगी।

५. कि मेरे खेलों में खनन कार्य बन्द होने के बाद आप मेरे खेलों को समतल करके देगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्वचत चना रहेगा

द् कि मैं बिना किसी जोर जबरवस्ती एवं दबाव के अपनी स्वेच्छा से यह अनापत्ति आपको दे रहा हूं/रही हूं। TON STRATT ELECTION TO

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उपरोक्त शापचे पत्र के पैरा 1 से 6 तक के सभी तब्यों को अपने को स्थान बागेश्वर में सल्प होना वीथित करता है।



हस्ताक्षर शपवी



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अनापत्ति प्रमाण पत्र

Howinder Sing Khetan 17 Mohan Sisg Shawed उम्र निवासी आम पटवारी तेत्र तुपेड़, तहसील एवं जनपद वागेक्षर शपथ पूर्वक निम्न कथन करता हूँ कि:-33 Karules मैं जनपद बागेश्वर के ग्राम कार्रिटा। का स्थाई निवासी हैं।

२. कि मै आम करूली का काश्तकार हूँ व भूमिधर हूँ।

३. कि मैं ग्राम करतली की अपने डक व कब्ने की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एमवएस० राठौर सउस नं० 346/3 कतावती कॉलोनी नवाबी रोड़ हल्दानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के पास कालाहूँगी रोड़ हल्द्वानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हूं।

४. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अस्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करन्गा/करन्म।

५. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगें। खनन कार्य पूर्ण होने के बोक हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

द कि मैं थिना किसी जोर जयरवस्ती एवं वचाव के अपनी स्वैच्छा से यह अनापत्ति आपको दे रहा हूं/रही हूं।

इस्ताक्षर शपधी

उपरोक्त शपप पत्र के पैस 1 से 6 तक के सभी तथ्यों को अपने को स्वान बागेश्वर में सत्य होना घोषित करता हूँ।

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विश्वास से आज दिनांक

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अनापत्ति प्रमाण पत्र

मार्चेड्रे देवी B CU/asing) TE उम्र निवासी आम पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद वागेश्र्वर शपथ पूर्वक निम्न कथन करता हूँ कि:-60 9. मैं जनपद बागेश्वर के ग्राम का 77% 04 1.01 का स्थाई निवासी हैं। े. कि मैं क्रम करूली का काश्तकार हूँ व भूमिषर हूँ। ३. कि मैं ग्राम करूली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी थी एम०एस० राठौर हाउस

3. कि में प्राप करता की अपने हक व करने की भूमि आप श्रीमती जानकी राठौर पत्नी थी एम०एस० राठौर हाउस नं० 346/3 कतावती कॉलोनी नवावी रोड़ हल्हानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कलाढूँगी रोड़ हल्हानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हूं:

8. कि मैंने इसले पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष मैं अपनी सहमति खड़िया खनन हेतु तेही वी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कुर्केता/कर्डनी।

9. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगें। खनन कार्य पूर्ण होने के लाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

में कि मैं बिना किसी जोर जबरवस्ती एवं बनाव के अपनी स्वेच्छा से यह अनापरित आपको दे रहा हूं/रही हूँ।

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हस्ताक्षर शपधी

उपरोक्त भपकर्भकों के पर 1 में 6 तक के सभी तब्धों को अपने को स्थान थागेश्वर में सार्थ होना घोषित करता हूँ।

RIJ

धाउल TEN RUPEES 語言語言 SIFTER INDIA activity apprais the Cal NOTARIAL NOTARIAL DIA NON JUDICIAL GARRAUS UTTARAKHAND 29AA 722307 अनापत्ति प्रमाण पत्र में भौव न रिस्ट पुत्र पिका सिंह पटवारी क्षेत्र तुपेड़, तहसील एवं जनपत वाग्रेझर शपथ पूर्वक निम्न कथन करता हूँ कि:-निवासी ग्राम उम्र मैं जनपद वागेश्वर के ग्राम अग्र 2001 Pla का स्याई निवासी हूँ। रे. कि मैं ज्ञाम करूली का काश्तकार हूँ व भूमिधर हूँ। 4. कि मैं ग्राम करतली की अपने हक व कब्जे की भूमि आप त्रीमती जानकी राठीर पत्नी श्री एम०एस० राठीर हाउस तें० 346/3 कलावती कॉलोनी नवाबी रोड़ इल्हानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के पास कालाहूँगी रोड़ हल्बानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सक्मति प्रवान करता/करती हूँ। है. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी alty करूंगा/करुंगी। ५. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगे। खनन कार्य पूर्ण होने के बाद हमारा इन खेलों पर मौलिक अधिकार पूर्ववत बना रहेगा। दे कि मैं बिना किसी जोर जबरवरती एवं दबाय के अपनी स्वेच्छा से यह अनापतित् आपको दे रहा हूँ/रही हूं। 8. 8. PATHAK DOT SAUET-P Selling. 10. 1145 15 हस्ताख्रर अपथी 200-201 1 th I was 南开 214 92 उपरोक्त शपुध पत्र के पेरा 1 से 6 तक के सभी तथ्यों को अपने ज्ञान व विश्वास से आज, विष्यंव को स्थान वागेश्वर में तरा होना घोषित करता हूं। RTJ इस्ताख्नर- शापशी



SHURING UTTARAKHAND

कि में भाषको

भाग व विश्वास से आज दिनांक

29AA 722301

अनापत्ति प्रमाण पत्र

Palariar 197 BT 21001-21. उम्र 70 निवासी ग्राम पटवारी क्षेत्र तुपेड़, तहसील एवं जनपव बाग्नेवर शपथ पूर्वक निम्न कथन करता हूँ कि:- मैं जनपद बागेश्वर के आम - h Doc// Por Aller) का स्थाई निवासी हूँ। २. कि मैं प्राम करव्ली का काश्तकार हूँ व भूमियर हूँ।

३. कि मैं याम करूसी की अपने हक व कच्चे की मूमि आप श्रीमती जानकी राठीर पत्नी श्री एम०एस० राठौर हाउस नं० 346/3 कलावती कॉलोनी नवाबी रोड़ हल्द्यानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाहूँगी रोड़ हल्द्वानी के पश्च में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करतो हू।

8 कि मैंने इससे पूर्व आएके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सडमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति एव जारी कर्लगा/कर्लगी।

५. कि मेरे खेतों में खनन कार्य बन्द होने के बाब आप मेरे खेतों को समतल करके देगे। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

६. कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह जनापत्ति आपको दे रहा हूं/रही हूं।

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उपरोक्त शपथी पत्रों के पैरी 1 से 6 तक के सभी तच्यों को अपने को स्थान बागेश्वर में संस्थ ठोना पीपित करता हूं।

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29AA 722303

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निवासी ग्राम

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मैं १२२८ वि. तहसील एवं जनपद बागेभ्वर शपथ पूर्वक निम्न कथन करता हूं कि:-9. मैं जनपद बागेभ्वर के ग्राम व्यनस्थर हूं। २. कि मैं ग्राम करवली का काश्तकार हूँ व भूमिथर हूँ।

३. कि मैं ग्राम करूली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठीर पत्नी श्री एम०एस० राठौर सउस नं० 346/3 कलावती कॉलोनी नवाबी रोड़ हल्हानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्ठूल के पास कालाडूँगी रोड़ हल्द्वानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रवान करता/करती हूं।

अनापत्ति प्रमाण पत्र

, ४. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु ''नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कर्लगा/कर्लगी।

५. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगें। खनन कार्य पूर्ण होने के -⁴⁴ बाद हमारा इन खेतों पर मीतिक अधिकार पूर्ववत बना रहेगा।

िंद कि मैं बिना किसी जोर जबरदस्ती एवं वबाब के अपनी स्वेच्छा से यह अनापरित आपको दे रहा हूँ/रही हूँ।

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उपरोक्त शपय पह, के पैस 1 से 6 तक के सभी सथ्यों को अपने को स्थान बागेश्वर में सत्य होना घोषित करता हूँ।

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अनापत्ति प्रमाण पत्र

मैंग्री 11,7 23,10,107 पुत्र 9, 21,20,170 पटवारी क्षेत्र तुपेड, तहसील एवं जनपद बागेश्वर शपघ पूर्वक निम्न कथन करता हूँ कि:-9. मैं जनपद बागेश्वर के ग्राम का स्थाई निवासी हूँ। २. कि मैं ग्राम करूली का काश्तकार हूँ व मुमिधर हूँ।

निवासी ग्राग

३. कि मैं ग्राम करूली की अपने इक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस नं० 346/3 कलावती कॉलोनी नवाबी रोड़ इल्ह्रानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्वूल के पास कालाढूँगी रोड़ हल्ह्रानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हें।

8. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति वा संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु बही दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी केईशा/कड़ेंगी।

कि मेरे खेलों में खनन कार्य बन्द होने के बाद आप मेरे खेलों को समतल करके देंगें। खनन कार्य पूर्ण होने के बाद तमारा इन खेलों पर मौलिक अधिकार पूर्ववत बना रहेगा।

क में बिना किसी जोर जबरवस्ती एवं दबाय के अपनी खेच्छा से यह अनायतित आपको दे रहा हूं/रही हूं।

सूचना अधिकार अभिनिमर्ग 2005 को अन्तर्गत ज़्रुवि सल्कवित

ेजला कार्यकों सीमरेपर

हस्तावार शपधी

Siterii jar उपरोक्त शएष पत्र के पैरा 1 से 6 तक के सभी तथ्यों को उग्पने को स्थान बागेश्वर में संख्य होना प्रोयित करता हूं।

हस्ताक्षर भएछी

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STRIGUES UTTARAKHAND

8 PATHAK Cloth, Bausthett

498, No. 7115182

29AA 722304

उम्र 65 निवासी ग्राम ळल्लल

अनापत्ति प्रमाण पत्र

क अदिन राम पुत्र माहेन्द्वर साम् पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बामेश्वर शफ्य पूर्वक निम्न कर्वने करता हूँ कि:-3. मैं जनपद बागेश्वर के ग्राम के 7 को का स्थाई निवासी है।

२. कि मैं ग्राम करत्ली का काश्तकार हूँ व भूमिधर हूँ।

3. कि मैं ग्राम करूली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस नं० 346/3 कलावती कॉलोनी नवाबी रोड़ हल्हानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स डाउस नंबर 1516 सायित्री कॉलोनी जी०जी०आई०सी० स्फूल के पास कालाहूँगी रोड़ हल्दानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हूँ।

थे. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं वी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी

A. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेती को समतल करके देगे। खनन कार्य पूर्ण होने के वीदे हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

सूचना अभिकार अविनियम 2005

के अन्तर्गत जून की साल

ह कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अनापत्ति आपको दे रहा हूँ/रही हूँ।

市司 RIGAL ज्ञान व विश्वास से आज दिनकि 🖉 SALANT & DATE

WRITERY AD IGIDA OF

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उपरोक्त श्रीयेथ तम् कि मिने कि लिंक के सभी तथ्यों को जयने को स्थान बागेश्वर में सत्य होना घेषित करता हूँ।

हस्ताक्षर शपथी

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SHRIES UTTARAKHAND

TRATE

29AA 722305

हस्ताचर भगधी

हस्ताखर श्रेष्ठाशी

अनापत्ति प्रमाण पत्र

में हरेगात राम गुन रेन की राम जम १२ विस्तूर्भ पटवारी क्षेत्र तुपेड, तहसील एवं जनपद बागेश्वर शपच पूर्वक निम्न कवन करता हूँ कि:-9. मैं जनपद बागेश्वर के ग्राम निर्माण का स्याई निवासी हूँ।

२. कि मैं आम करली का काश्तकार हूँ व भूमिधर हूँ।

३. कि मैं ग्राम कसली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस में० 346/3 कलायती कॉलोनी नवाबी रोड़ हल्खानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्तूल के पास कालाडूँगी रोड़ हल्खानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रवान करता/करती हूँ।

8. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पत्त में अपनी सहमति खड़िया खनन हेतु मही वी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से यूर्व किसी अन्य को सहमति पत्र जारी कर्सगा/कर्लगी।

2. किं मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगे। खनन कार्य पूर्ण होने के बाब हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

हू. कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा ते यह अनापत्ति अपकों दे रहा हूं/रही हूं।

गुपना अधिवार व्यव्यक्षिय 2007 के जनागंव जन्म स्वीयाज्यका

कि में 21404 ज्ञान व विश्वास से आज दिमांक

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उपरोवत अपय पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान बागेश्वर में सत्य होना घोषित करता हूँ।

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अनापत्ति प्रमाण पत्र

में होत्र रिश्वि एवं जनपद बागेज्वर शपच पूर्वक निम्न कथन करता हूँ किः-9. में जनपद बागेज्वर के प्राप्त जनगढ़ बागेज्वर शपच पूर्वक निम्न कथन करता हूँ किः-9. में जनपद बागेश्वर के प्राप्त जनगढ़ ला स्याई निवासी हूँ।

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कि मैं प्राप्त करल्ली का काश्लकार हूँ व शूमिधर हूँ।

३. कि मैं ग्राम करूली की अपने हक व करने की भूमि आप श्रीमती जानकी राठौर पानी श्री एम०एस० राठौर हाउल नं० 346/3 कलावती कॉलोनी नथाबी रोड़ इल्ह्यानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स डाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाहूँगी रोड़ इल्ह्यानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हूँ।

8. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पश्च में अपनी सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कहेंगा/कहेंगी।

भू कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतो को समतल करके देगें। खनन कार्य पूर्ण होने के विद्रिहमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

(a) में बिना किसी जोर जबरदस्ती एवं देवाव के अपनी स्वेच्छा से यह अनापाल आपको दे रहा हूं/रही हूँ।

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हस्तासर शण्डी - প্রি' বা পেটা পেন

उपरोवत शपथ पत्र के परा 1 से 6 तक के सभी तथ्यों को अपने को स्थान बागेश्वर में सत्य होना घोषित करता हूँ।

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कि में 214 01 तान व विश्वास से आज दिनांक

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अनापत्ति प्रमाण पत्र

पुत्र हेने . अपि जाली उम

पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद-वागेश्वर शपथ पूर्वक निम्न कवन करता हूँ किः-ते. मैं जनपद वागेश्वर के ग्राम टक्रांटला/ का स्थाई निवासी हूँ।

२. कि मैं ग्राम करूली का काश्तकार हूँ व भूमिधर हूँ।

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3. कि मैं ग्राम करतली की अपने हक व कब्जे की भूगि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर डाउस नंठ 346/3 कलावती कॉलोनी नवावी रोड़ हल्हानी एवं अन्य साझेवार मैसर्स स्थर माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के पास कालाढूँगी रोड़ हल्हानी के पश्च मैं खड़िया खनन हेतु अपनी पूर्ण सहमति प्रयान करता/करती हूं।

8. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करूंगा/करूंगी।

2. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतत करके देंगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

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६. कि मैं बिना किसी जोर जबरवस्ती एवं दबाव के अपनी स्वेच्छा से यह अनापत्ति आपको दे रहा हूं/रही हूँ।

हस्ताक्षर शपथी

Gen - 9/051

कि मैं ज्ञान व विश्वास से आज दिनॉक उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को संयाने वागेश्वर में सत्य होना घोषित करता हूं।

हस्ताक्षर शपथी

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अनापत्ति प्रमाण पत्र

में श्री चार्या सिंह. पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बाब्रेश्वर शपथ पूर्वक निम्न कथन करता हूँ कि:-निवासी ग्राम 9. मैं जनपद बागेश्वर के ग्राम किरुक्त 58 का स्थाई निवासी हैं। २. कि मैं प्राम करूली का काश्तवार हूँ व भूमिधर हूँ। ३. कि मैं ग्राम करत्वी की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर ख़उस 😰 346/3 कलावती कॉलोनी नवाबी रोड़ हल्हानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंदर 6 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाढूँगी रोड़ हल्झानी के पक्ष में खड़िया खनन हेतु अपनी क्यों सहमति प्रदान करता/करती हैं। अ/कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु ही वी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कहेंगा/कहेंगी। 2. कि मेरे खेलों में खनन कार्य बन्द होने के बाद आप मेरे खेतो को समतल करको देगें। खनन कार्य पूर्ण होने के) बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववल बना रहेगा। ६. कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अनुायूत्ति आपको दे रहा हूं/रही हूं। सचना अधिकार/आधिनय के अन्तर्गत कवा जे D. PACHAR मित्र वासीलय वर्णवाचा कि में रापर्श उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्वान बागेश्वर में सत्य होंना घोषित करता हूँ। ज्ञान व विश्वास से अगज दिनोंक RT

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R. C. PATHAN.

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इस्ताक्षर भाषभी

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अनापत्ति प्रमाण पत्र

	न श्री दक्षि सिंह	प्रम करन भी बास क्रिंह	उम्र	निवासी साम
ŕ	पटवारी क्षेत्र तुपेड, तहलील एवं जनपद बगेश्वन 9. मैं जनपद बागेश्वर के ग्राम विनर्श्व की	शपय पूर्वक निम्न कथन करता हूँ किः-	49	किली

२. कि मैं आम करूली का काश्तकार हूँ व भूमिधर हूँ।

३. कि मैं प्राप्त करूली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठीर पत्नी श्री एम०एस० राठीर हाउस मिं० 346/3 कलावती कॉलोनी गवाबी रोड़ हल्डानी एवं अन्य साझेदार मैससं स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाहूंगी रोड़ हल्डानी के पक्ष मैं खड़िया खनन हेतु अपनी पूर्ण सहमति प्रवान करता/करती हूँ।

थे. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु (नही दी है और न ही मैं आपके प्रार्थना पत्र के अग्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी (करूंगा/करूँगी)

५. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

सुघन अधिकर शाँध

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६. कि मैं बिना किसी जोर जबरवस्ती एवं वयाव के अपनी स्वेच्छा से यह अनाप्रसिर्त ओपको दे रहा हूँ/रही हूँ।

उपरोक्त शापथ, के केम्प्रेस 1 रे 6 तक के सभी तथ्यों को जपने 能谱 र/(दे) को स्थान वागेश्वर में संत्य होना घोषित करता हूं। ज्ञान व विश्वास से आज विसंक



उत्तराखण्ड UTTARAKHAND

29AA 722349

अनापत्ति प्रमाण पत्र

ज जेमांसेठ A GRATHE বস निवासी ग्राम पटवारी क्षेत्र तुपेड़, तहसील एवँ जनपद बालेक्ष्वर शपथ पूर्वक निम्न कथन करता हू किः-39 Tasnin 9. मैं जनपद बागेश्वर के ग्राम किर्जली का स्वाई निवासी हैं। २. कि मैं प्राप्त करल्ली का काश्तकार हूँ व भूमिधर हूँ। कि मैं प्राम करती की अपने हक व कको की मूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर सउस नं० 346/3 कलावशी कॉलोनी नवाबी रोड़ हल्हानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के पास कालाइँगी रोड़ हल्ह्यानी के पक्ष में खड़िया खनन हेतु अपनी पुर्ण सहमति प्रदान करता/करती हूँ। . कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु ही दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य की सहमति पत्र जारौ करूंगा/कर्लेगी। 9. कि मेरे खेतों में खनन कार्य वन्द होने के बाद आप मेरे खेतों को समतल करके देगें। खनन कार्य पूर्ण होने के वाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा। ६. कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अज़ापतित अग्रपको दे रहा हूँ/रही हूँ। सचना अस्तिकार के की अभवगत साम हस्ताहार शृम्य्सी 1990 भारत कार्याके वार्यरवा GRATINX. 雨市灵川山 उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान बायेश्वर से सुद्ध होना घोषित करता है। होन व विश्वास से आज_दिसांक RTS उस्ताक्षर शपथी a 611



उत्तराखण्ड UTTARAKHAND

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निवासी ग्राम

अनापत्ति प्रमाण पत्र 2410 पटवारी क्षेत्र तुर्पेंड्रे, तहसील एवं जनपद बागेश्चर शपथ पूर्वक निम्न कथेन करता हूँ किः-9. में जनपद बागेश्वर के ग्राम chtge का स्वाई निवासी है।

२. कि मैं ग्राम करूली का काश्तकार हूँ व भूमिवर हूँ।

३. कि मैं प्राम करूली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस नं० 346/3 कलावती कॉलोनी नवाबी रोड़ हल्ढानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सायित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालादूँगी रोड़ हल्खानी के पश्च में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रवान करता/करती हूँ।

४. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी केइंगा/कर्खगी।

ूँर.) कि मेरे खेतों में खनन कार्य वन्द होने के बाद आप मेरे खेतों को समतल करके देंगें। खनन कार्य पूर्ण होने के ुड़ाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

संगता आगवणार

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(ह) कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अनापत्ति आपको दे रहा हूं/रही, हूँ।

इद्रासर शापची

हस्ताश्वर- ज्ञंप्रयी

उपरोक्ती सपन प्रमे थे परि 1 से 6 तक के सभी तथ्यों को अपने को स्थान प्रामेश्वर में सत्य होना घोषित करता हूँ। /

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51 ार्यस्ट्रिया IE | RUPEES वाणिष्य 罗门口127日 DIA राष्ट्राय क NOTARIAL NOTARIAL DIA NON JUDICIAL उत्तराखण्ड UTTARAKHAND 29AA 722331 अनापत्ति प्रमाण पत्र 用、出行生1 BLA M QUILLE उम्र निवासी ग्राम पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बागेझ्नर शपध पूर्वक निम्न केवन करता हूँ कि:duletli 42 ा. में जनपद बगेश्वर के ग्राम ch see का स्वाई निवासी हूँ। an for २. कि मै ग्राम करूली का काश्तकार हूँ व भूमियर हूँ। ३. कि मैं ग्राम करूली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी रावौर पत्नी श्री एम०एस० राठौर हाउस ने_{0,} 346/3 कलावती कॉलोनी नवाबी रोड़ हल्द्वानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 15) के सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के पास कालाइँगी रोड़ हल्हानी के पक्ष में खड़िया खनन हेतु अपनी 8 B. PATHAX पणे सेडमति प्रदान करता/करती हैं। Diati, Bagesinner 🛌 कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संख्या के पत्त में अपनी सहमति खड़िया खनन हेतु Reg. 748, 7(17) होंगे/वी है और न ही मैं आपके प्रार्थना पत्र के अस्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कर्सना/कर्सनी। 2. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देगें। खनन कार्य पूर्ण होने के बाव तमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा। ६. कि मैं बिना किसी जोर जयरवासी एवं वयाव के अपनी स्वेच्छा <u>से</u> यह अनापत्ति आपको दे रहा हूँ/रही हूँ। 전속이 취직적 in arrentia las हर्नताहीर शपयी AND COLOR Um DB कि दियाश उपरोक्त शपथ पत्र के कैंग्र 1 से 6 तक के सभी तथ्यों को अपने ज्ञान व विश्वास से आज दिवाँक को स्थान बारोश्वर में सत्य होना चोषित करता हूँ। RTS BAGANT & PATHAA हस्ताक्षर अपथी (LOCI) involution (LOC) 18-9-15

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FOR STRATEGY AND CARE

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ज्ञान व विश्वास से आज विनांक

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अनापत्ति प्रमाण पत्र キロイモレクノン語 国 レイモンノイモ उम्र निवासी ग्राम पटवारी क्षेत्र तुपेड, तहसील एवं जनपद बागे,व्हार शपथ पूर्वक निम्न कथन करता हूँ किः-9. मैं जनपद बागेश्वर के ग्राम का खत का स्याई निवासी हूँ। २. कि मैं ग्राम करवली का काश्तकार हूँ व भूमिधर हूँ।

३. कि मैं ग्राम करूली की अपने हक व कब्जे की भूमि आप श्रीमती जानको राठौर पत्नी श्री एम०एस० राठौर हाउस नंठ 346/3 कतावती कॉलोनी नवाबी रोड़ हल्दानी एवं अन्य साझेदार मैंसर्स स्टार माइन्स एण्ड मिनरल्स डाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआई०सी० स्कूल के पास कालाडूँगी रोड़ हल्दानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रधान करता/करती हूँ।

कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किली व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कहना/कहनी।

4. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल क्रम्फो देनें। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मीलिक अधिकार पूर्ववत बना रहेगा।

६. कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से बह अनापतित आपको दे रहा हूं/रही हूँ।

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हस्ताक्षर शापयी

Lubinantshah

उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान वागेग्रवर में सत्य होना धोषित करता हूँ।



उत्तराखपुड UTTARAKHAND

29AA 722329

अनापत्ति प्रमाण पत्र

में सुनीता देखी आजिस किसन सिंह पटवारी क्षेत्र तुपेड, तहसील एवं जनपद वाग्रेवर शपय पूर्वक निम्न कयन करती हूँ कि:-	ত্তম	निवासी आम
पटवारी क्षेत्र तुपेह, तहसील एवं जनपद बागेव्वर शपर्य पूर्वक निम्न कर्यन करती हूँ कि-	30	भक्तनी
 मैं जनपव बागेश्वर के ग्राम टान कर स्थाई निवासी हूँ। 		0010536

कि मैं ग्राम करत्ली का काश्तकार हूँ व भूमिधर हूँ।

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३. कि मैं ग्राम करूली की अपने हक व कर्जे की मूमि आप श्रीमती जानकी राठीर पत्नी श्री एमवएस० राठीर हाउस नं० 346/3 कलावती कॉलोनी नवाबी रोड़ हल्डानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के पास कालाईूंगी रोड़ हल्हानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हैं।

 कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नेही, दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जाएँ कर्रेंगा/कर्लेगी।

मुद्ध कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगें। खनन कार्य पूर्ण होने के E. B. PATHAK Dian, Gapenne ver बाद हुमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

(a) कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी खेळ्छों से यह अेनापत्ति आपको दे रहा हूँ/रही हूँ।

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हस्ताक्षर_शप्यी स्ताला

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उपरोक्त शपथ, पत्र के पैरा 1 से 6 तक के सभी तब्बों को अपने को स्थान यांगेश्वर में सत्य होना घोषित करता हूं।

हस्ताश्वर शपथी 4, 21 235



उत्तराखण्ड UTTARAKHAND

B. PATHAK

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29AA 722328

अनापत्ति प्रमाण पत्र JII 41 MINIUE 3H GR. निवासी ग्राम 214/19 8 3 पत्र पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बागेक्ष्स शपथ पूर्वक निम्न कयन करता हूँ कि:-3. मैं जनपद बागेश्वर के प्राम - केली का स्थाई निवासी हूँ। サフタイクリ कि मैं ग्राम करूली का काश्तकार हूँ व भूमिंधर हूँ।

३. कि मैं ग्राम करूली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर डाउस नं० 346/3 कलावती कॉलोनी नवाबी रोड़ हल्दानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स डाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालावूँगी छेड़ हल्द्यानी के पश्च में खड़िया खनन हेतु अपनी पर्ण सहमति प्रवान करता/करती हूँ।

8. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पत्र में अपनी सहमति खड़िया खनन हेतु तही दो है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करिया/करेंगी।

कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगे। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना उढ़ेगा।

६. कि मै बिना किसी जोर जबरवस्ती एवं दबाव के अपनी स्वेव्य से यह अनापत्ति आपको दे रहा हूँ/रही हूँ।

Alterne I

席年 2142

ज्ञान व विश्वास से कॉक दिनॉक

हस्ताक्षर शपची 214/12 5

उपरोक्त ज़पध पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान वागेश्वर में सत्व होना घोषित करता हूँ।

इस्ताधर शयथी

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GARIEUS UTTARAKHAND

四年 2149

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29AA 722361

अनापत्ति प्रमाण पत्र

में हो जा लाल साह पुत्र जिस्ती लाल साह जा निवासी ग्राम पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बागेश्वस शपथ पूर्वक निम्न कथन करता हूँ कि:-9. मैं जनपद बागेश्वर के ग्राम का रु ली का स्थाई निवासी हूँ। २. कि मैं ग्राम अस्त्ती का काश्तकार हूँ व भूसिधर हूँ।

३. कि मैं ग्राम करूली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठीर पत्नी श्री एम०एस० राठीर हाउस नं० 346/3 कलावती कॉलोनी नवाबी रोड़ हल्यानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 साबित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाढूँगी रोड़ हल्यानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ग सहमति प्रदान करता/करती हूँ।

४. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष मैं अपनी सहमति खड़िया खनन हेतु नहीं दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करूंगा/करूंगी।

4. कि मेरे खेतों में खनन कार्य वन्द होने के बाद आप मेरे खेतो को समतल करके देंगे। खनन कार्य पूर्ण होने के वह हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

कि मैं बिना किसी जोर जबरवस्ती एवं दबाव के अपनी स्वेच्छा से यह अनाप्रस्ति आपको दे रहा हूँ/रही हूँ।

A STATIS ELD हरतादा र शॉमधी 1-mol-

उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान वागेश्वर में सत्य होना धोषित करता हूँ।

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(- S der an REALERANCE . 8 F FP 20 किंगाकार जलगणक INDIA 1003 NOTARIAL NOTARIAL IDIA NON JUDICIAL **STRIGUE UTTARAKHAND** 29AA 722333 अनापत्ति प्रमाण पत्र पटचारी क्षेत्र तुपेड, तहसील एवं जनपद बागेश्वर शोपय पूर्वक निम्न केयन करता हूँ कि:-9. मैं जनपद बागेश्वर के आम दी कुले कि का स्याई निवामी क निवासी ग्राम उम्र

कि मैं आम करूली का काश्तकार हूँ व भूमिधर हूँ।

किमें दीपश

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ज्ञान व विश्वास से आज दिनांक

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(३. कि मैं ग्राम करूली की अपने इक व कब्जे की मूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस नंट 346/3 कलावती कॉलोनी नवाबी रोड़ हल्हानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्यूल के पास कालाईूंगी रोड़ हल्द्वानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हैं।

थ. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु से मही दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी भ_{यर}सँगा/कर्लगी।

2. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतो को समतल करके देगे। खनन कार्य पूर्ण होने के वाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

६. कि मैं बिना किसी जोर जबरदस्ती एवं वबाव के अपनी स्वेच्छा से यह अनापत्ति आपको दे रहा हूँ/रही हूँ 882 111

हस्ताक्षर शपथी

7-07-200 उपरोक्त शपथ पत्र के पैरों 1 से 6 तक के सभी तथ्यों को अपने को स्थान बागेश्वर में सत्य होना घोषित करता है।

日本日本 हस्ताक्षर शपथी



GARIERS UTTARAKHAND

29AA 722334

हस्तासर-शणधी

इस्ताहर शपथी

Mahan stark

Valente South

अनापत्ति प्रमाण पत्र

सम निवासी ग्राम A 21181192 122119 पत्र पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद बागेश्वर शपच पूर्वक निम्न कथन करता हूँ वि 35 मैं जनपद बागेश्वर के आम on bod का स्वाई निवासी हैं।

२. कि मैं ग्राम करूली का काश्तकार हूँ व भूमिधर हूँ।

३. कि मैं ग्राम करवती की अपने हक व कब्जे की भूमि आप श्रीमती जानको राठौर पत्नी श्री एम०एस० राठौर क्षउस नं० 346/3 कलावती कॉलोनी नवाबी रोंड़ हल्दानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाहूँगी रोड़ हल्दानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रवान करता/करती हूँ।

४. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नेही दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी बर्स्लग/करूँगी।

ई, कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगें। खनन कार्य पूर्ण होने के बाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

६. कि मैं बिना किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अनापत्ति आपको दे रहा हूं/रही हूँ।

A 4 2142 ज्ञान व विश्वास से आज विनांक

उपरोक्त शपचरीज हो पैरा 1 से 6 तक के सभी तथ्यों को अपने को स्थान बागेश्वर में सल्प होना घोषित करता हूँ।

Q-9-15

65 次山、大小小 E RUPEES TP ASTREE SALES FOR dia non judici NOTARIAL NOTARIAL BARIEUS UTTARAKHAND 29AA 722335

अनापत्ति प्रमाण पत्र

न की नदिलानसिष्ट पत्र ह्व. जोगामाधिङ उम्र \$2 निवासी आम केंद्रक पटवारी क्षेत्र तुपेड़, तहसील एवं जनपद वागेक्ट्र शपद्य पूर्वक निम्न कथन करता हूँ कि-

पटनारा नन पुरुष, पहलारा पर जनपुर नापस पूर्वन निर्मा करता करता हू . मैं जनपद बागेश्वर के जाम का (कर्ण) का स्याई निवासी हूँ।

alli

SASANT & PATHON

18.9.15

CLARGE BARTATION

 न जनपद बागरवर के आन का दिल्ला / २. कि मैं ग्राम करूली का काश्लकार हूँ व भूमिषर हूँ।

३. कि मैं ग्राम करूली की अपने हक व कब्जे की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर हाउस त्रं० 346/3 कलावती कॉलोनी नवाबी रोड़ हल्हानी एवं अन्य साझेदार मैसर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाइूंगी रोड़ हल्हानी के पक्ष मैं खड़िया खनन हेतु अपनी पूर्ण सड़मति प्रवान करता/करती हूँ।

४. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु नुही दी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कुरुंगा/करूँगी।

५. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देंगे। खनन कार्य पूर्ण होने के वाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

कि मैं किसी जोर जबरदस्ती एवं दबाव के अपनी स्वेच्छा से यह अर्जापत्ति आपको दे रहा हूँ/रही हूँ।

SICER 1 200 a 2 हस्ताक्षर शपथी

कि मैं **३।५९७** इतन व विश्वास से आज विनांक उपरोक्त शपथ पत्र के पैरा 1 से 6 तक के सभी रथ्यों को अपने को स्थान बागेस्वर में सत्य होना घोषित करता हूँ।

हस्तान्तर शपथी

2 00 TEN RUPEES H 41 DIANONJU NOTARIAL NOTARIAL **BARIEVE UTTARAKHAND** 29AA 722336

अनापत्ति प्रमाण पत्र

में अपाद कि विराण, पुत्र अप-न कि किटायन्छ पटवारी क्षेत्र तुपेड़, तहसील एवं जनेपद बामेश्वर शपथ पूर्वक निग्न कथन करता हूँ कि-निवासी ग्राम भें जनपद बागेश्वर के ग्राम का का का का स्वाई निवासी हैं।

२. कि मैं ग्राम कस्ली का काश्तकार हूँ व भूमिधर हूँ।

3. कि मैं ग्राम करूली की अपने हक व कब्जे की मूमि आप श्रीमती जानकी राठौर पत्नी श्री एम०एस० राठौर ताउस नं० 346/3 कलावती कॉलोनी नवाबी रोड़ हल्हानी एवं अन्य साझेवार मैसर्स स्टार माइन्स एण्ड मिनरल्स ताउस नंबर 1516 सावित्री कॉलोनी जी०जी०आई०सी० स्कूल के पास कालाढूँगी रोड़ हल्द्वानी के पक्ष में खड़िया खनन हेतु अपनी पूर्ण सहमति प्रवान करता/करती हूँ।

४. कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पश्च में अपनी सहमति खड़िया खनन हेतु कही वी है और न ही मैं आपके प्रार्थना पत्र के अन्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी कैसना/कसनी।

/४. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेती की समतल करके देंगें। खनन कार्य पूर्ण होने के _भवाद हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

६. कि मैं बिना किसी जोर जबरवस्ती एवं दबाव के अपनी खेच्छा से यह अनोपत्ति आपको दे रहा हूँ/रही हूँ।

18-9.15

20016 हस्ताक्षर शपट 01.20

कि मैं रापधी ज्ञान व विश्वास से आज विनांक

) उपरोक्त शपघ पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने /को स्थान वागेश्वर में सत्य होना घोषित करता हूँ।

-तरतासर शपथी



अनापत्ति प्रमाण पत्र में कर्त मा (11 य- च का देवा पुत्र प्य) विशान रिन्द a ucarti क्षेत्र तुपेड, तहसील एवं जनपद वागेझ्नर शपथ पूर्वक निम्ने कवन करता हूँ कि निवासी ग्राम का स्थाई निवासी हूं।

मैं जनपद बागेश्वर के ग्राम Ch-& Ch
 क मैं ग्राम करूली का जाश्तकार हूँ व भूमिघर हूँ।

前并 21421

Q. 9.15

ज्ञान व विश्वास से आरंग दिनास

030730

1. कि मैं प्राम करूली की अपने हक व कले की भूमि आप श्रीमती जानकी राठौर पत्नी श्री एमव्यसव राठौर राउस नंठ 346/3 कलावती कॉलोनी नवाबी रोड़ हल्खानी एवं अन्य साझेदार मैलर्स स्टार माइन्स एण्ड मिनरल्स हाउस नंबर 1516 सावित्री कॉलोनी जीवजीवआईवसीव स्कूल के प्रस कालाढूँगी रोड़ हल्ह्यानी के पक्ष मैं खड़िया खनन हेतु अपनी पूर्ण सहमति प्रदान करता/करती हूं।

(4) कि मैंने इससे पूर्व आपके अतिरिक्त अन्य किसी व्यक्ति या संस्था के पक्ष में अपनी सहमति खड़िया खनन हेतु तहीं दी है और न ही मैं आपके प्रार्थना पत्र के अग्तिम निस्तारण होने से पूर्व किसी अन्य को सहमति पत्र जारी करूँगा/करूँगी।

५. कि मेरे खेतों में खनन कार्य बन्द होने के बाद आप मेरे खेतों को समतल करके देगें। खनन कार्य पूर्ण होने के ,वाव हमारा इन खेतों पर मौलिक अधिकार पूर्ववत बना रहेगा।

प्रिः कि मैं बिना किसी जोर जबरदस्ती एवं दबाब के अपनी खेच्छा से बह अनापतित आपकी दे रहा हूँ/रही हूँ।

#266318

हस्तम्बर शपुर्धा उपरोक्त शपय पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपने

उपरोक्त शप्य पत्र के पैरा 1 से 6 तक के सभी तथ्यों को अपन को स्थान बागेक्वर में सत्य होना घोषित करता है।

हस्ताहार शपुथी 🗧 🖉

4 Showard

Biriarde

Annexure- 6

<u>Photo of Trial Pit</u>





79°49'45"E

79°49'35"E

29°52'5"N

29°52'10"N

29°52'0"N

29°52'15"N

79°49'55"E

29°52'10"N

79°49'55"E

79°49'35"E

79°49'40"E

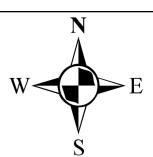
79°49'40"E

79°49'45"E

79°49'50"E

79°49'50"E

29°52'5"N



Legend



Lease Boundary

🔨 Track

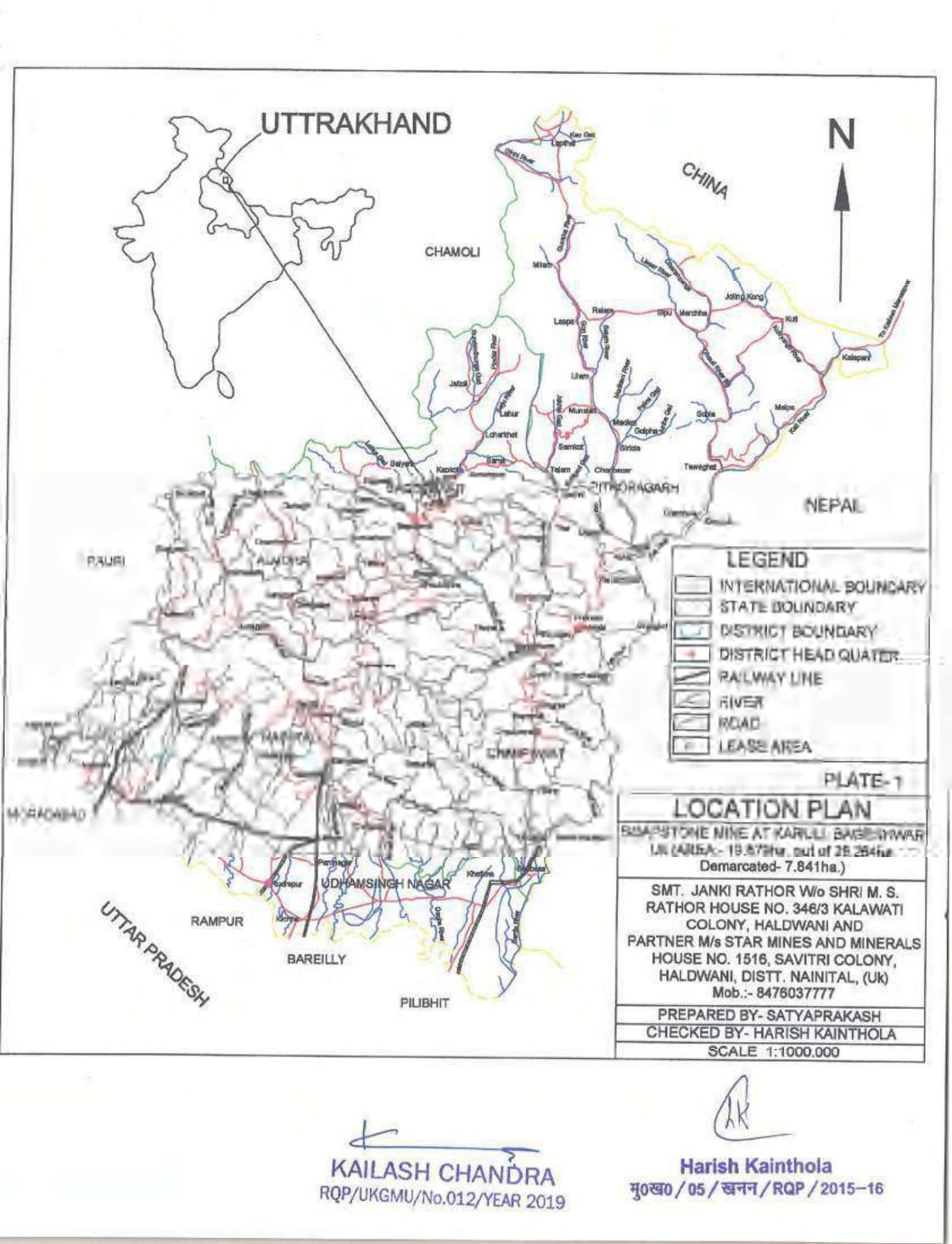
🔊 Metal Road

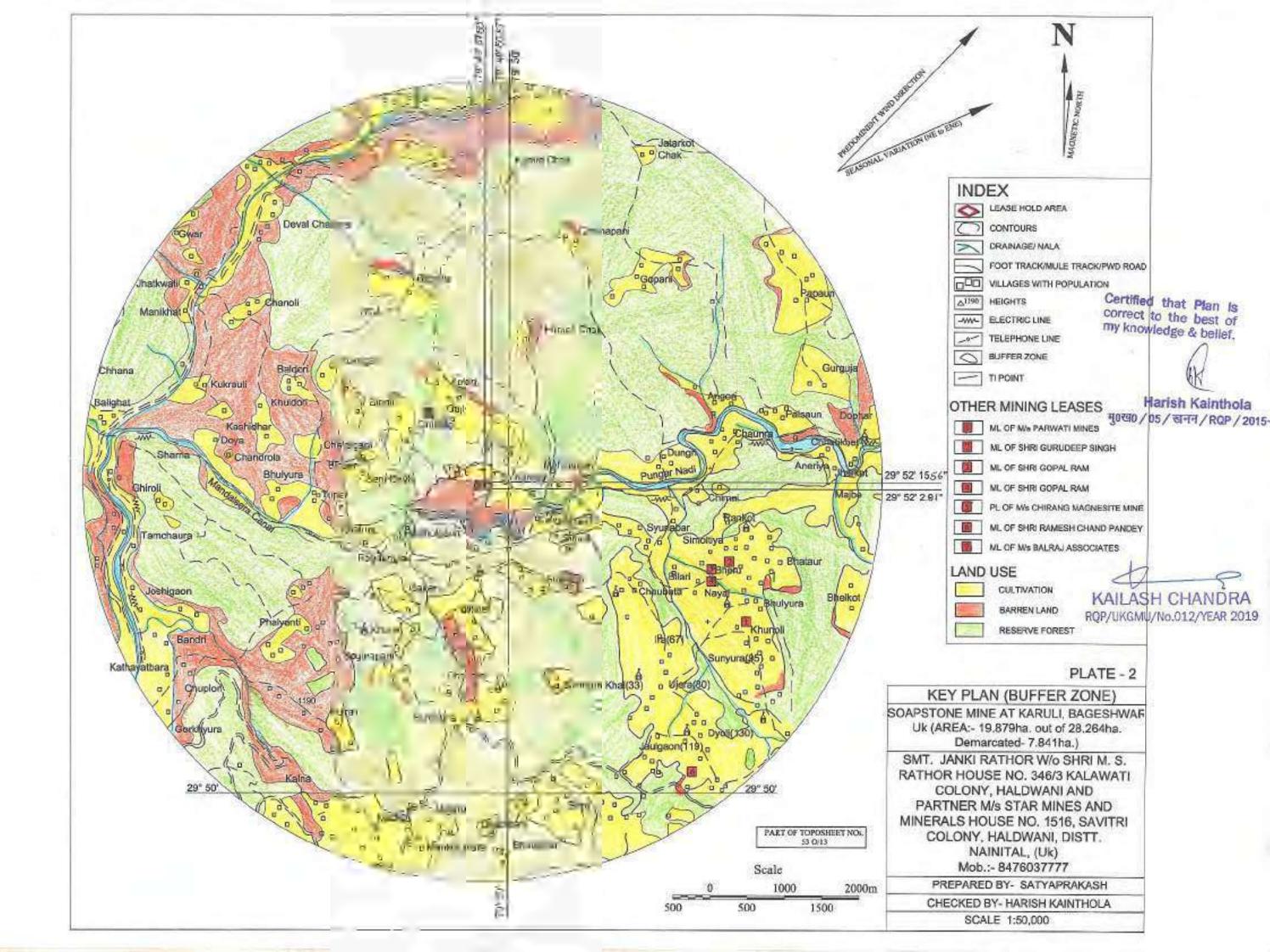
DGPS Coordinates			
Pillar	Latitude	Longitude	
1	29°52'02.81"N	79°49'39.36"E	
2	29°52'13.89"N	79°49'37.59"E	
3	29°52'15.34"N	79°49'38.84"E	
4	29°52'15.56"N	79°49'45.36"E	
5	29°52'12.03"N	79°49'43.01"E	
6	29°52'10.22"N	79°49'48.11"E	
7	29°52'11.93"N	79°49'49.51"E	
8	29°52'11.78"N	79°49'50.57"E	
9	29°52'04.51"N	79°49'45.93"E	

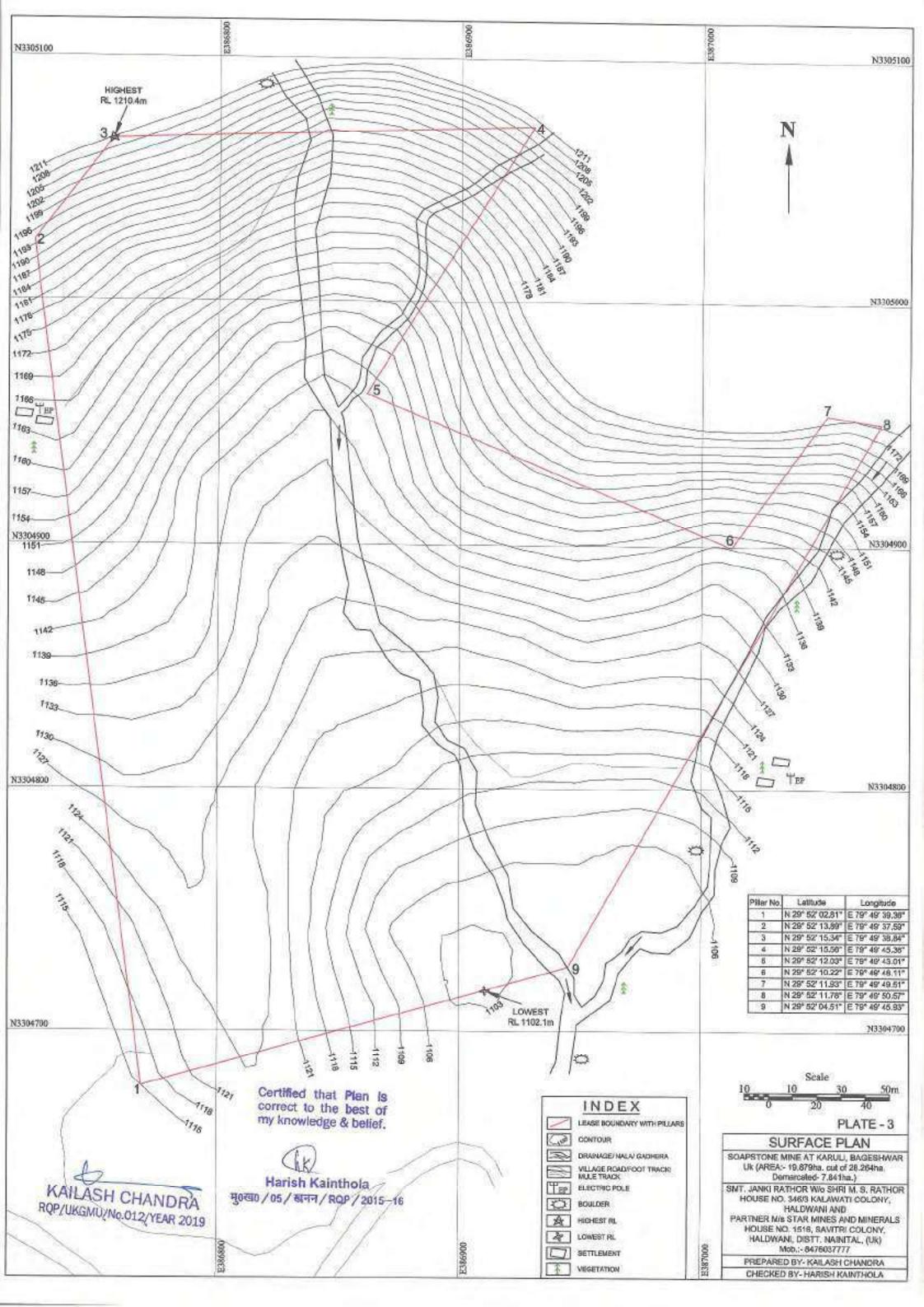
Scale					
	0.025	0.05	0.1	0.15	0.2
			Kilometers		

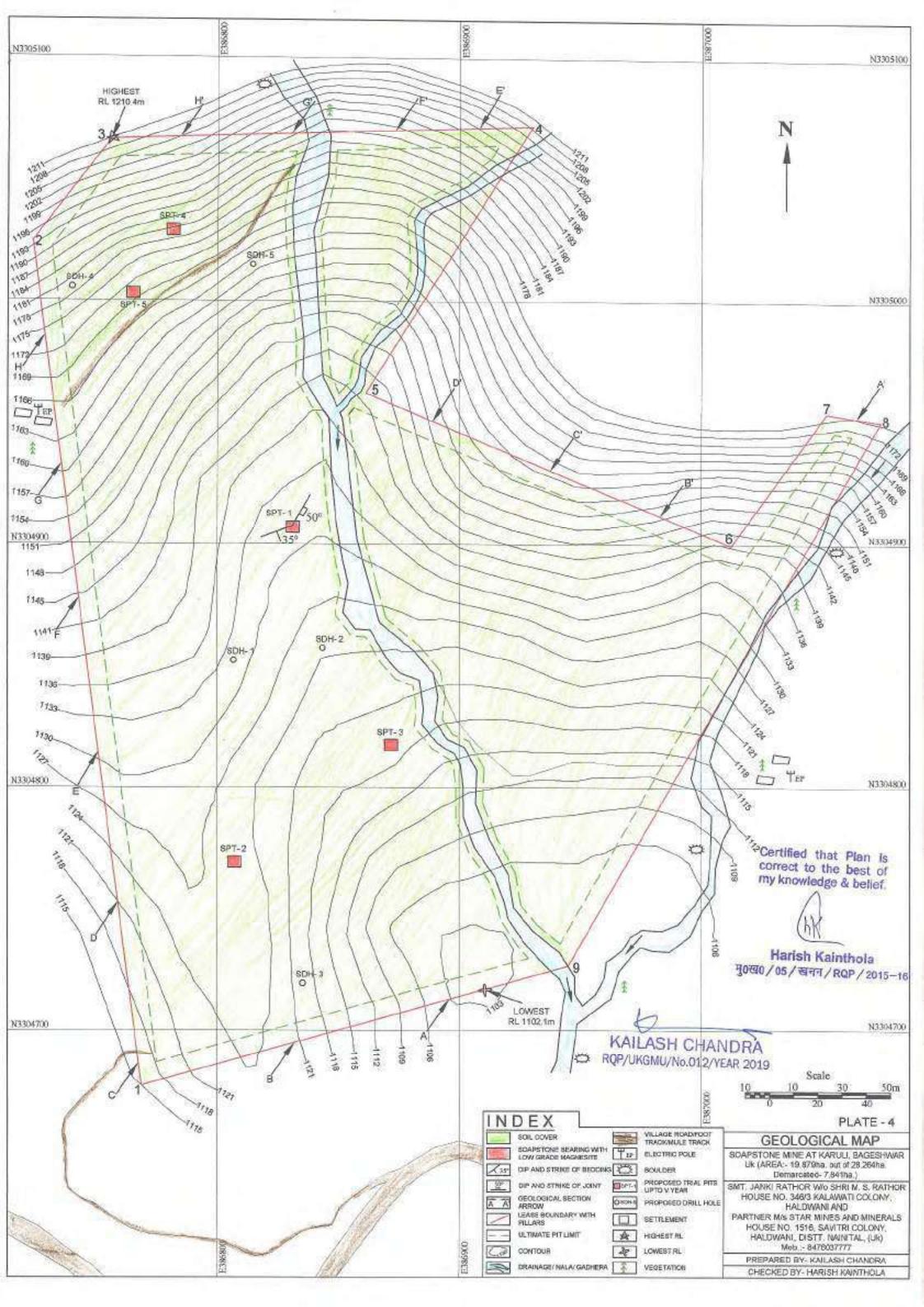
Satellite Location Map of the Lease Area

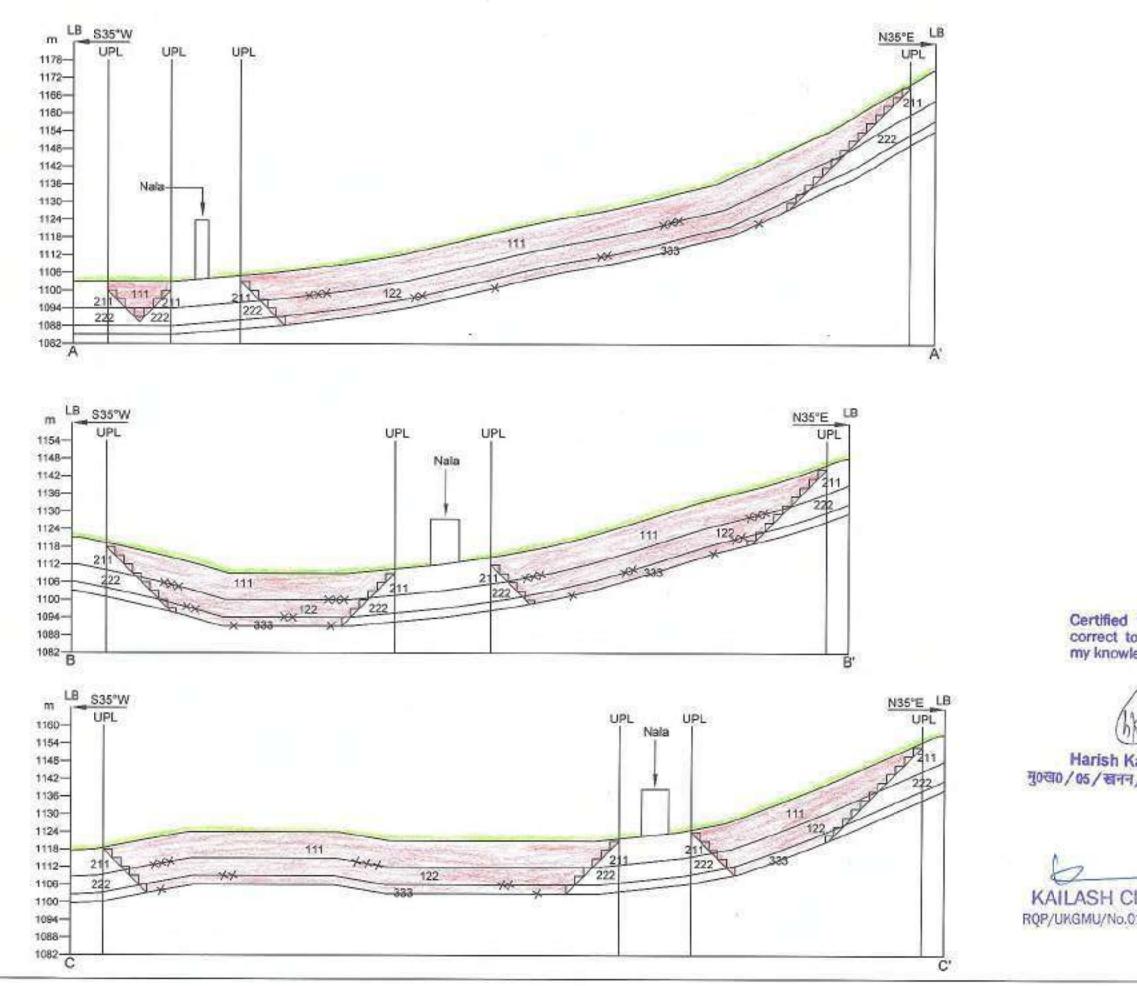
SOAPSTONE MINE AT KARULI, BAGESHWAR Uk (AREA:- 19.879ha. out of 28.264ha. Demarcated- 7.841ha.) SMT.JANKI RATHOR W/o SHRI M. S. RATHOR HOUSE NO. 346/3 KALAWATI COLONY, HALDWANI AND PARTNER M/s STAR MINES AND MINERALS House No. 1516, Savitri Colony, Halwani, DIstt. Nainital,(Uk) Prepared BY- HIMGEO Consultancy Services











	No. 11 COMPACT OF A COMPACT OF A
進	INDEX
	SOIL COVER
	SOAPSTONE BEARING WITH LOW GRADE MAGNESITE
	LB LEASE BOUNDARY
	UPL ULTIMATE PIT LIMIT
	MINING BENCHES
	MEASURED MINERAL CONTACT
	INDICATED MINERAL CONTACT
	× INFERRED MINERAL CONTACT
	111 PROVED/ MEASURED MINERAL RESERVES
	122 PROBABLE/ INDICATED MINERAL RESERVES 333 MINERAL RESERVES MINERAL RESERVES
that Plan Is	211 FEASIBILITY MINERAL RESERVES
o the best of ledge & belief.	222 PRE-FEASIBILITY MINERAL RESERVES
Kainthola	Scale 10 10 30 50m 0 20 40
	PLATE - 5A
	GEOLOGICAL SECTIONS
	SOAPSTONE MINE AT KARULI, BAGESHMAR Uk (AREA:- 19.879ha, out of 28.264ha, Demarcated- 7.841ha.)
HANDRA 012/YEAR 2019	SMT. JANKI RATHOR W/o SHRI M. S. RATHOR HOUSE NO. 346/3 KALAWATI COLONY, HALDWANI AND PARTNER M/s STAR MINES AND MINERALS HOUSE NO. 1516, SAVITRI COLONY, HALDWANI, DISTT. NAINITAL, (UK) Mob.:- 8476037777
	PREPARED BY- KAILASH CHANDRA
	CHECKED BY- HARISH KAINTHOLA

