STATE LEVEL EXPERT APPRAISAL COMMITTEE (SEAC), KARNATAKA
(Constituted by MoEF& CC, Govt. of India)

No. KSEAC/MEETING/2017

Dept. of Ecology & Environment,
Karnataka Government Secretariat,
Room No. 710, 7th Floor, 4th Gate,
M.S. Building, Bangalore,
Date: 06-12-2017.

To
Sri. Abhishek B Iliger
S/o. Sri Basavaraj,
H.No.182/6, Plot No.10/11,
Vidyanagar, Ist Corss,
Near Green Park Youth Club Road,
Gokak, Belagavi.

Sir,

Sub: Proposed Ordinary Sand Quarry Activity of 22-00 Acres (8.90 Ha.) in Malaprabha River Bed, Block No. 01, in Adjacent to Sy. Nos. 133, 135, 131 (P), 128, 126, 125, 146 (P), 132, 131 (P), 127, 126, 125, 123 (P) & 122(P) of Sangala Village, Ramdurga Taluk, Belagavi district of Sri. Abhishek B Iliger (SEIAA 75 MIN 2017)

****

With reference to your application for environmental clearance, it is informed that your proposal will be considered for appraisal during the meeting of the **189rd State Level Expert Appraisal Committee (SEAC) scheduled to be held on 14th December 2017 4:00 PM at Room No. 252, 2nd Floor, Gate-II, Multi-Storied Building, Bangalore-560 001.**

You are requested to forward a set of project documents namely Form-1/ Form-1A / Conceptual Plan / Prefeasibility Report / IBM approved Mining Plan/ REIA Report, Topomap, Google map of the area, village map *as applicable*, submitted to Karnataka State Level Environment Impact Assessment Authority **to all the Members of the SEAC along with filled up format enclosed as Annexure-I. One more copy of the filled up annexure –I format should be submitted to Secretary, SEAC in advance.** The documents may be forwarded to each of the members of the SEAC (list enclosed as **Annexure-II**) by courier/ speed post so as to reach them well in time (at least 5 days prior to the meeting). A copy of this letter may be enclosed with the documents as reference while addressing to the members. If the members of the Committee do not receive the above information well in advance, the Committee will not consider your proposal.

You are requested to attend the meeting along with your accredited EIA/EMP coordinator who can explain the project and the project site related details (along with recent dated photographs) and also respond to the queries/ suggestions, which the Committee may make during the discussion. The accredited EIA/EMP coordinator would be required to make a presentation on the project/site details/ToR/EIA/EMP/additional information sought by SEAC *as applicable*. Your presentation softcopy should be brought in a CD or pen drive and not in a DVD. You are also requested to upload

your presentation softcopy in the Department computer on the meeting day. The project proponent and accredited EIA/EMP coordinator should be present well in advance before discussion of your subject. The booklet of the power point presentation may be in A4 size (printed on both sides without hard back and plastic cover) and circulated to the members in the meeting. The accredited EIA/EMP coordinator should come well prepared to the meeting for making presentation before the members with all relevant details.

Instructions to Project Proponents and Consultants:

- The proponent who has signed the statutory application-Form I is only permitted to attend the meeting. Only in the unavoidable circumstances somebody from the top management who is in a position to take decision with regard to the project may be authorized to represent you in the meeting.

- The project proponent shall submit an undertaking as a part of the EIA report, owning the contents (information and data) of the EIA report in accordance with O. M. No. J-11013/41/2006-IA-II(I) dated: 05.10.2011 issued by MoEF, GoI.

- The following instructions shall be adhered to by the accredited EIA/EMP coordinator in the preparation of EIA report as per Notification No. S.O. 648(E) dated: 03.03.2016 issued by MoEF & CC, GoI, New Delhi:

- On the front page of EIA/EMP reports, the name of the consultants/consultancy firm along with their complete details including their accreditation, by an organization such as Quality Council of India/National Accreditation Board for Education & Training (NABET) should be indicated. The consultant while submitting the EIA/EMP report shall give an undertaking to the effect that the prescribed ToRs have been complied with and that the data submitted is factually correct.

- While submitting the EIA/EMP reports, the names of all the Experts associated with/involved in the preparation of these reports and the laboratories through which the sample have been got analysed should be state in the report. It should clearly be indicated whether these laboratories are approved under Environment (Protection) Act, 1986 and the Rules made there under.

PLEASE NOTE: The accredited EIA/EMP coordinator should submit filled up format of declaration by experts contributing to the EIA and EMP well in advance before the SEAC meeting.

- The Nabet accredited or QCI accredited organization shall only be permitted for making presentation before SEAC meeting and this will be strictly adhered to by SEAC.

- For making presentation, should be an EIA coordinator and shall produce original/attested QCI/NABET letter indicating his functional area of expertise.

(Vijaya Kumar)
Secretary, SEAC.
Karnataka.

Date: 09th Dec. 2017

From
Sri. Abhishek B Ilegar
S/o Sri. Basavaraj
H.No. 182/6, Plot No. 10/11
Vidyanagar 1st Cross
Near Green Park Youth Club Road
Gokak, Gokak Tq.
Belagavi Dist., Karnataka

To
The Member Secretary
State level Environmental Impact Assessment Authority
7th Floor, IV Gate, M S Building
BANGALORE, Karnataka

Dear Sir,

SEIAA 75 MIN 2017

Sub: Environmental Clearance for River Sand Block of 22-00 Acres in Malaprabha River Bed, Block No. 01, Adj. Sy. Nos. 133, 135, 131, 128, 126, 125, 146, 132, 127, 123 & 122 (P) of Sangala village, Ramdurg Taluk, Belagavi district, Karnataka – Submission of Revised Application Form-I, Modified Quarry Plan etc.

Ref: 1) Our EC Application Dated 17/10/2017
2) SEAC Letter No. KSEAC/MEETING/2017 dated 06-12-2017
3) Approval of Modified Quarry Plan by DMG, Belagavi, vide No. DMG/BGM/DD/Sand Block/QPA/2017-18/ 2869 Dated 07-Dec-2017

This is to bring to your kind notice that, we had submitted the Application for Environmental Clearance for the above sand block, vide Ref. 1 and our proposal has been listed for appraisal by SEAC, on 14th Dec. 2017 (Ref. 2 above). Due to some technical reasons, we have modified the Quarry Plan and got the same approved by the Dept. of Mines & Geology, Belagavi, vide Ref. 3 above.

Now, in line with the modified Quarry Plan, we are herewith submitting the Revised EC Application (Form-I), Revised Pre-FR etc., along with its soft copy and requesting you to kindly consider our revised proposal, in place of earlier proposal.

Thanking you

Yours Faithfully

Sri. Abhishek B Ilegar

Encl.: As Above

Government of Karnataka
Office of the Deputy Director, Dept. of Mines and Geology, APMC Road, Sangameshwar Nagar, Belagavi
Telephone: 0831-2428042, E-Mail: ddbelgaum123@gmail.com

District Geological Survey report of

Belagavi District.

Deputy Director
Dept. Of Mines and Geology
Belagavi.

QUARRYING PLAN
APPROVED
Deputy Director
Dept. of Mines & Geology
BELAGAVI

District Geological Survey report of Belagavi District.

1.0 INTRODUCTION

Belgaum district is located in the North-Western part of the Karnataka state, surrounded by Dharawar, Bijapur, districts of Karnataka, Kolhapur, Ratnagiri, Sangali districts of Maharashtra, and the Goa State. Belgaum being the district head quarters (earlier known as "Venugrama" or the "Bamboo Village") is one of the oldest, strong, prominent and well cultured historical place nestling high in the Western Ghats. Belgaum has now become one of the important and considered districts in the state of Karnataka.

Belgaum is now marching with a tag of fast growing, redeveloping district with a population of approximately over 42,07,264. Belgaum is exactly at the centre between Mumbai and Bangalore. The Bangalore – Poona NH 4, and Belgaum-Panajim NH 4-A pass through the city. The city is having access to other important cities through rail and air. Asphalt roads join all talukas and districts. There is a good network of roads in all the seasons to almost all villages except few villages in the Western ghat region in Khanapur taluka. A rich, combined cultural heritage of Karnataka, Maharashtra, and Goa can be enjoyed in the city.

In this report an effort is being made to put forth an overall picture of ground water, and related aspects. The important features include the Geology of the district, Topographical features, Climatic conditions, Rain fall , Drainage pattern ,Surface irrigation facilities, Ground water estimation by norms of GEC1997, Chemical quality of water, Ground water development, etc. in the district.

1.1 AREA

The Belgaum district is located on the Survey of India topo-sheets between Latitude. $15^0$25'-$15^0$55'00" and longitude $74^0$15'-$75^0$25', occupy an area of 13,45,600 Ha. The district comprises of 10 talukas, tabulated as below.

Table-1

	Taluka	Geographical Extent Ha	Forest area Ha	Irrigatable area Ha	Non Irrigable area Ha	No.Of villages
1	Athani	199500	581	188087	10832	089
2	Bailhongal	112200	7913	92523	11764	126
3	Belgaum	103700	22643	71365	9422	131
4	Chikkodi	126900	547	114095	12258	102
5	Gokak	153900	22284	120089	11527	108
6	Hukkeri	099100	13987	71021	14092	121
7	Khanapur	174900	91309	75476	8115	221
8	Raibag	095800	2647	83498	9655	054
9	Ramadurg	121500	15081	97267	9152	103
10	Soudatti	158100	13432	128146	16522	131
	Total	1345600	190424	1041838	11338	1186

2.0 PHYSIOGRAPHY:

The district is divided in to three physiographical divisions. They are:

Malenaadu Tract	(Western Ghat Region)
Gadinaadu Tract	(Border area Region)
Bayalunaadu Tract	(Plain Land Region)

The "Malenaadu" tract is the Western Ghat area, with lush green forests, sharply undulating topography, and heavy rainfall. Many 1st order streams traverse this area. There are many natural springs in this tract. The "Gadinaadu" (intermediary) tract shows medium range flat to gently rising hills, with shrubby greenery, receiving an average rainfall. The streams are of 3rd & 4th order. The "Bayalunaadu" tract shows vast, flat terrain, with flat topped barren hills. The rainfall received is less than 650 mm. The streams are very gentle.

3.0 SOIL:

Soil is an index of the bedrock. Most of the soil is a bi-product of weathering of the bedrock. Formation wise the soil and their characters observed in the district are as below:

SI. NO	Formation	Type of soil	Character	Porosity	Suitability In district	Depth of weathering In M.
1	Basalt	Light Black	Fine grained	Poor	Good for dry crops.	Ranging from 0 to 25 mts.
2	Schist	Light brown, light yellow, reddish, greyish	Clastic to semi clastic	Medium to good	Good for paddy cotton sugar, cane	Ranging from 25 m. to 40 m, in rare cases up to 90-95 m.
3	Granite/ Gnessic granite	Light brown Sandy soil often with greyish shaly soil.	Porous, medium to coarse grained.	Highly porous water retention capacity	Good for paddy sugarcane	Ranging from 5 m to 25 m.
4	Sandstone	Light brown to deep brown	Porous, fine grained. To medium grained often with quartz pebbles	Highly porous good aquifers	Sugarcane, groundnut chilly, jowar, vegetable	Ranging from 5 surface to 25 m.

The Basalt area is covered by black cotton soil where the rock is directly subjected to weathering. Wherever the Zeolitic beds are exposed the soil is brownish with specks of amygdaloids, chalcedony, quartz and calcite, etc. The Sandstone and Quartzite formation are covered by brown, or deep gray, sandy soil. The Lime stone and Dolomite are covered by calcareous dark gray soil.The Schist covered by yellow and purple shale shows yellow and purple soils. The BHQ bands are not altered sufficiently and in many areas the bands are exposed at surface. Broken BHQ pieces and deep brown soil is observed around these deposits. Phyllite having limited weathering shows dark gray coloured soil covering. The

Granite and Gneissic Granite, show light brown to deep brown and deep gray soils often mixed with sand and feldspar. The dykes are surrounded by black cotton soil.

4.0 GEOLOGY:

Complex geological formations can be observed in the district. The Schist and Banded Ferruginous Quartzite, the peninsular gneiss by Granite and Gneissic Granites, the Kaladgi formations, Sandstone, Quartzite, Shale and Limestone and Dolomite, Basalt (Deccan Trap) and the Laterite formations are observed in the district.

Geological Succession:

Laterite, Sand deposits	- Recent.
Deccan Basalt	- Tertiary,
Sand Stone, Dolomite, Limestone	- Kaladagi series,
Schist, Gneiss, Granite	- Archean.

The Archaen Schist is an extension of the Dharawar schist belt. The formation is overlaid by thick cover of shale, the thickness varying from 15,m to 25m as observed in many villages of Khanapur and Bailhongal, Belgaum talukas. In few places like, Marihal in Belgaum taluka, Shivanur, Nichanaki villages of Bailhongal taluka, the shale cover extends up to 100 m. The Schist encountered below shale cover is greyish in colour, exhibit well developed platy structures. Individual plates can be easily separated. It is usually weathered up to 25-30 m. It shows a general trend of NW 10-SW 10SE dipping due east. The Schist formation is observed in Bailhongal, Khanapur, Belgaum and Saundatti talukas.

Phyllite is a hard formation, resembling schist by its grey colour, having trend, dip etc similar and occurring adjoining the schist. Joints and platy structures are poorly developed. It is massive in nature, breaking in to irregular, angular fragments or irregular massive boulders. It shows a trend of NNW-SSE, and occurs parallel to schist. Such formation occupies limited extent in the Central part of Bailhongal taluka and Western parts of Saundatti shallow weathering, and non-porous nature, seepage of water is limited to shallow depth and hence regularly proved to be apoor aquifer. 16 villages of Bailhongal taluka and western part of Saundatti taluka, which are traversed by these formation acute shortage of water.

The BHQ exposures occur parallel to the schist formation. The quartz and hematite impart a mixed brownish colour to the rock. Well developed banded structures can be clearly observed. Exposures of BHQ are observed in the Bailhongal taluka. This is characterized by compact platy structure of hematite and quartz bands. Both Schist and BHQ show a general trend of NNW-SSE direction, dipping due East.

Sandstone, Quartzite and Limestone, Shaly Limestone represent the Kaladagis. The Sand stones are horizonatally bedded, fine to coarse grained, exhibiting white, buff, pink, yellow colours. Many structural features, like parallel bedding current bedding, ripple marks current bedding, folds, faults, brecciation, conglomeration etc. Can be observed. Usaually in the lower contours, the rock is weathered up to 25-45 m. Flat topped hill ranges can be seen in Hukkeri, Ramadurga, Saundatti and Bailhongal Talukas. This is the second largest formation observed in the district. Lot of sandstone is being used as building material. There are natural springs in Sandstone, such as the spring of Yallamma temple, Sogal-kshetra, Hunashiwari math, Rudrapur fort etc.

The Quartzite is a highly siliceous rock. Glossy in nature. With silica up to 94-97 % They are various colours ranging from white, gray, pink etc. Huge quartzite exposures are available in Ramadurga and Saundatti talukas. In few place of Ramadurga and Saundatti talukas, this is being used for refractory and glass industries. Quartzite is being used a builiging material because of its abundant availability.

The Lime stone occurrence restricted to the eastern part of Gokak taluka and NE part of Ramadurga and South, western part of Khanapur taluka. This is greyish coloured, compact, and often thickly bedded. Ca% varies from 42-48%, Mg 14 %-17%. Si02 in Yadwad area ranges up to 7% Limestone of Belgaum district is massive in nature and occurs as massive deposits. This is being used for prepatation of Lime, and Cement.

Dolomite is observed to occur in Limestone areas of Yadwad in Gokak taluka. A large deposit if Dolomite is observed near Yaragatti, Yarzarvi villages in Saudatti taluka. Sahley limestone is noticed around sidnal, Godachi village in Ramadurga taluka, Being used as paving stone. Mg % is up to 21-27% with Ca % up to 2930 % The dolomite of this district has not captured much market, probably due to consumers being far away. This is massive in nature, very brittle and often stands as hard, non weathered stretch. In Talaewadi-Krishnapur range of Khanapur taluka there are at least 7-8 huge caves in limestone and dolomite.

The Deccan Basalat, generally known as " Trap" of Deccna Trap" occupy a large extent in the Northern part, thinning out towards South. The origin of Trap is resultant of volcanic eruptions in the poona region of Maharashtra State and surface flows in to Karnataka. At least 3-4 volcanic flows can be seen above ground leves, (640m) and 3-4 flows, below surface levels. Individiual trap flow is marked by inter-trappean bed, usually filled with Zeolites, Amygdaloids, Qurtz, jasper, Calcite etc. As cavity filling deposits. Well-developed onion of exfoliation type weathering, vertical and columnar joints can be noticed. Flat-toppded hill ranges can be seen in Belgaum, Khanapur, Hukkeri, Chikkodi, Athani and Raibag talukas. This formation being the younger, it is observed to be over lying sandstone, schist, gneisses, limestone etc. As observed by the drilling of bore wells. At surface the rock is weathered up to 8-15m.

At least 2-3 lava flows are encounterd in drilling. Water is stores in the inter-trappen zones. Hence, bore wells in Deccan trap area, are usually drilled to more than 100 m. to cut through different layers. In many parts of Athani taluka, central parts of Chikkodi and Raibag taluka, the inter-trappean beds are exposed in the form of reddish, deep brownish soil, often mixed with the amygdaloids, jaspers, zeolites etc. The formation being porous, the seepage and evapotation are on higher side. In rainy period the water level rise to as shallow as surface level and go deep to tune of wells going dry. The wells and bore wells in this formation show a fluctuation of 15-25 m. Almost all stone crushers in the district are in trap formation only.

Laterite of this district is an altered product of Deccan trap. In a cross section, one can observe laterite at top followed by leached out alumina clay, grading down in to weathered of massive trap. It is exposed as covering over the trap bedrock. The alumina content is usually less than 30% but some detached, 49-59% alumina rich deposits (Bauxit) are observed in southwestern parts of Khanapur and Belgaum talukas. Because of its porous nature, laterite behaves as good receptor of water, allowing percolation up to the depth bedrock. This being followed by Deccan trap the water start to spread horizonatally and at many places appear in the from of contact springs as observed in Khanapur and Belgaum

talukas. There are more than 15 villages having the springs as their water supply sources. Hundreds of perennial springs are noticed in Khanapur and Belgaum. The rivers like Malaprabha, Potli, Mandovi, Mahadai etc take their origin in the contact of Laterite and Trap. The Laterite is generally weathered up to 15-25 m. there is a sunken cave in laterite at Maan village in Khanapur taluka,

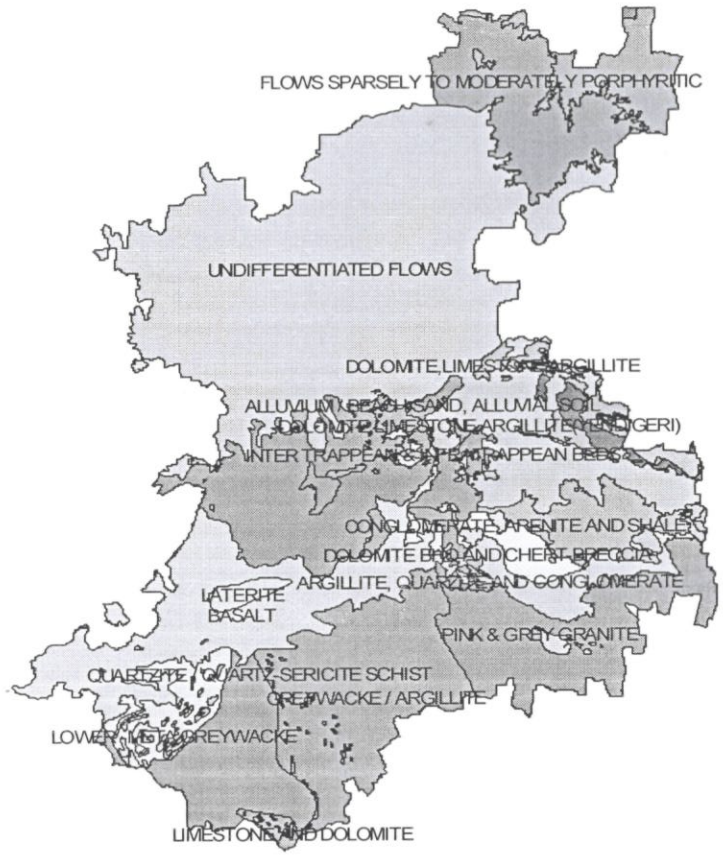
A part from these, the Khanapur taluka is enriched with varieties of fire clay, clastic clay, china clay etc. The bricks of Khanapur taluka have a good demand in and adjoining districts. There is a roof tile factory, and two ceramic factories usintg the fire clay of Khanapur and Bailhongal talukas. The rich deposits of sand of Khanapur and Gokak talukas have a great demand in the district as the adjoining Maharashtra districts.

Following table shows talukawise distribution of geological formations in the district and their utility.

TABLE-II

SI.NO	***Taluka***	***Geological formation***	***Economical aspects.***
1	Athani	Deccan Trap	Building stone.
2	Belgaum	Schist,Laterite, Basalt, sandstone Gneiss.	Laterite, Deccan trap as Building stone.
3	Chikkodi	Deccan Trap	Building stone.
4	Gokak	Granite, Gneiss, sandstone, Basalt,Limestone, Dolomite, sand	Basalt and sandstone ss building material, Limestone, Dolomite in Chemical, and Cement industries.
5	Hukkeri	Basalt, sandstone Quartizite	Basalt, sandstone as building material
6	Khanapur	Schist, Granite, Gneiss, Basalt, Limestone,Bauxite,Manganese, Iron ore, Limestone, Dolomite, Dyke, Clays,sand.	Granite, Gneiss, Dyke,as building stone. Iron Manganese, Bauxite for Industrial purpose. Clay for ceramic wares, roof tiles etc. Oridinary Sand for construction, moulding sand in industries.
7	Raibag	Deccan Trap	Building stone.
8	Ramadurga	Shale, Basalt, Quartzite, Sandstone, Gneiss, Limestone, Shaley Lime stone	Quartzite, Limestone in chemical Industries, Sandstone, Shaley Limestone as building material.
9	Soundatti	Sandstones and Quarzite	
10	Bailahongal	Phyllite and Deccan trap, BHQ	

Geological map of Belgaum district



60 0 60 120 Kilometers

Litho
- ALLUVIUM/ BEACH SAND, ALLUMIAL SOIL
- ARGILLITE
- ARGILLITE(YADAHALLI)
- ARGILLITE, QUARZITE AND CONGLOMERATE
- BASALT
- CONGLOMERATE, ARENITE AND SHALE
- DOLOMITE BHQ AND CHERT-BRECCIA
- DOLOMITE,ARGILLITE AND CHERT-BRECCIA
- DOLOMITE,LIMESTONE,ARGILLITE
- DOLOMITE,LIMESTONE,ARGILLITE(YENDIGERI)
- FLOWS SPARSELY TO MODERATELY PORPHYRITIC
- FLOWS SPARSELY TO MODERATELY PORPHYRITIC WITH COMPOUND FLOWS AT THE TOP
- FLOWS WITH MIXED CHARACTERS, HIGHLY TO MODERATELY PORPHYRITIC
- GREYWACKE/ ARGILLITE
- GREYWACKE/ SERICITE PHYLLITE AND QUARTZ CHLORITE SCHIST
- INTER TRAPPEAN & INFRATRAPPEAN BEDS
- LATERITE
- LIMESTONE AND DOLOMITE
- LOWER -META GREYWACKE
- MANGANESE AND IRON FORMATION WITH PHYLLITE AND CHERT
- PINK & GREY GRANITE
- QUARTZITE / QUARTZ-SERICITE SCHIST
- RED PHYLLITE
- SAND STONE CONGLOMERATE
- UNDIFFERENTIATED FLOWS
- VARIEGATED LIMESTONE / UNCLASSIFIED SANDSTONE,CHERT LIME STONE & SHALE
- Litho1

N
W E
S

5.0 RAINFALL

Highest rainfall received in the district is in the Western and South West parts, medium rainfall in the central region, and lowest in the North East region, which follows the physiographical classification as mentioned above. The district receives South West monsoon from June to September, and North West monsoon during October and November. Some odd season rains are received during March, April and May.

5.1 CLIMATE & TEMPERATURE:

The district shows semi-arid climatic conditions. There is a distnict climatic pattern defining there climatic seasons. They are summer season, Rainy season and winter season.

5.20 Summer season- The Summer season prevail between February to June months. The rise in temperature varying from 36^0 -39^0C. Is recorded by the Meteorological department. The Northern part of the district shows hot climatic conditions during this period, and the temperature reduces west wise, with 28^0-2^09 C. Few odd season monsoon showers with lightening and thunders are received in the month of February and May, must for the pre preparations of actual sowing.

5.30 Rainy Season- The SouthWest monsoon the district with heavy showers, during the month of June, and continue up to October. Highest rainfall 2134.6 mm is recorded in Khanapur taluka, the lowest 514 mm in Raibag taluka. The rainfall goes on reducing from SW part to NE part. Many seasonal springs strat to flow water up to September,October months. All reservoirs receive water, and water is let out in the canals. The NE monsoon rains are received in the northern parts of the district. Rainy season is the period of ground water recharge. The rivers, nallas, ponds, reservoirs etc. Get their water through the rainfall.

5.40 Winter Season-The winter cold strart just after the rainy season, i.e from October to February. Temperature recorded in the Malenadu region is 8^0-14^0C.in the Gadinaadu rea 25^0-32^0C. And up to 41^0C in Bayalunaadu area.

6.0 SURFACE WATER FACILITIES:

The district falls under the influence of Krishna river basin, and a small part of Khanapur taluka under the Kali river basin. The major tributary rivers of Krishana river are Ghataprabha and Malaprabha, which are supported by sub-tributaries like Markandeya, Hiranyakeshi, Doodhaganga, Vedganga, Agrani etc. The Malaprabha and Mahadai River originating in the Western Ghat of Khanapur taluka having a number of perennial springs, all along their courses. The Pandhari and Mahadai rivers in south join the Kaali river basin. Along the Mahadai riverd course there are three waterfalls: Wajara Poha I.II.III.

There are, Reservoirs, MI tanks, Irrigation tanks, Bandharas, Barrages, Lift irrigations etc. Contributing water for irrigation.

They are tabulated below:

7.0 <u>IRRIGATION PROJECTS</u>

There are two major irrigation projects in the district, viz. Hidkal Dam (Raja Lakhamgouda Jalashaya,) acroos Ghataprabha river, and Naviluteertha Dam (Renuka Jalashaya,) across Malaprabha River. The NW parts of Chikkodi taluka are receiving cannal water from Doodaganga Irrigation Project of Maharashtra. An irrigation dam at Shirur village in Hukkeri taluka and Tigadi-Harinalla project, near Tigadi in Bailhongal taluka, are under

construction. The Hidakal and Naviluteetha dams are providing irrigation water in Chikkodi, Raibag Gokak, Ramadurg talukas in Belgaum district and adjoining Dharawad & Bagalkot district.

8.0 HYDROGEOLOGY:

Ground water occurs in the hard rock terrains under unconfined and semi-confined conditions. The occurrences of ground water are controlled by secondary porosity developed in hard rocks by the processes of weathering, fracturing and tectonic deformation. The main source of recharge to the aquifers is precipitation and water applied for irrigation.

8.1 The Archean crystalline hard rock province:

Crystalline hard rocks represented by gneisses, schists, granites. The availability of groundwater in the phreatic zones of these formations is controlled by the extent of weathering. Generally the depth of weathering being more in the valley zones, often extending to 30 m is more viable for dug-wells. In contrast, the yield in bore wells is dependent upon in addition to the extent of weathering, persistence of joints and fractures present at depths in the hard rocks of the area and intrusive bodies encountered in them.
The ground water exploration studies indicate that the NE-SW lineaments are the most potential followed by E-W, NNE-SSE lineaments. Among these the NW-SE lineament is most commonly occurring. The yield of bore wells in this province is as high as 30 lps with transmissivity up to 2000m^2 in ideal conditions tapping tensile joints in granites/ pegamatites and other equi-granular rocks.

8.2 The sedimentary provinces: Consolidated sedimentary rocks occur in Kaladgi foramations mainly represented by Quartzite, sandstone, shale and limestone. The primary porosity in these formations has been lost due to the process of consolidation and compaction. Amongst these formations limestones form poor aquifer as they are mostly horizontally bedded and devoid of solution activity except along the contact zones, however where ever there is limesontes having caverons are good aquifers. Sandstones of Ramdurg, Soundatti taluka are poor aquifers as they occur at higher altitudes forming ridges.

8.3 Deccan traps:

About 60% area of Belgaum district is covered with the Deccan traps. The vesicles and amygdaloidal structures for the porus media in the traps. Generally these porous media are filled with the secondary materials like Quartz, Zeolites and clays. Zeolitic traps and Amygdaloidal and vesicular properties of the trap facilitate occurrence and movement of ground water. Further the intersection , the traps have shallow dip that facilitates the movement of the ground water through contact zone of the flows. The intra trapean red bole beds act as an aquiclude. The weathered zone occurs up to a depth of 20 m bgl and semi confined conditions occur below 20 to 40 m in the Deccan trap. The jointed and fractured Deccan traps carry the ground water to deeper depths. Depth of bore wells drilled in traps ranges from 40 to 175m. the general yield of wells in traps is low and drawdowns are high. The specific capacity of the wells in deccan traps ranges from 0.05 to 341/min/m draw down. The yield of bore wells ranges from 40 to 1440 m3/day. The transmissivity of the traps ranges from 1 to 369 m2/day.

8.4 Laterites:

These laterites are derived from the traps. They are highly porous and permeable and as a result get fully recharged after monsoon. The aquifer drains out natuarally as subsurface out flow in the post monsoon period. The dug wells, tapping these aquifers located on slopping ground gets dried up during summer months even if the ground water exatraction in the area is low.

QUARRYING PLAN APPROVED
Deputy Director
Dept. of Mines & Geology
BELAGAVI

FORM – I

(As per EIA Notification SO1533, dated – 14.09.06)

Type of Proposal	:	New
Product/ Activity	:	Ordinary Sand Quarrying
Proposed Area	:	22-00 Acres (8.90 Ha.)

AT

State	:	Karnataka
District	:	Belagavi
Taluk	:	Ramdurg
Village	:	Sangala - 1
Adj. Sy. No.	:	133, 135, 131, 128, 126, 125, 146, 132, 131, 127, 126, 125, 123 & 122(P)

SCREENING CATEGORY – B

Duly completed & submitted by

Sri. Abhishek B. Iliger
S/o. Sri. Basavaraj
H. No. 182/6, Plot No. 10/11
Vidhya Nagar, 1st Cross
Near Green Park Youth Club Road
Gokak, Belagavi, Karnataka- 591 307

FORM - I

(I) **Basic Information**

#	Item	Details
1	Name of the Project/s	Ordinary Sand Quarry in Sangala-1, Malaprabha River Bed, Ramdurg
2	Sl. No. in the Schedule	Category "B" under item 1 (a)
3	Proposed capacity/ area/ length/ tonnage to be handled/ command area/ lease area/ number of wells to be drilled	Lease area: 8.90 Ha. (22-00Acres)

Year	Saleable Sand (90 %) MT	Wastage (10 %) MT
I	45,400	5,045
II	45,400	5,045
III	45,400	5,045
IV	45,400	5,045
V	45,400	5,045
Total	**2,27,000**	**25,225**
Avg.	45,400	5,045

#	Item	Details
4	New /Expansion/Modernization	New
5	Existing Capacity/Area etc.	Nil
6	Category of project i.e. 'A' or 'B'	B
7	Does it attract the general condition? If yes, please specify.	No
8	Does it attract the specific condition? If yes, please specify.	No
9	Location	

C. P	Latitude	Longitude
A	N 15° 53' 29.39"	E 75° 25' 11.89"
B	N 15° 53' 33.70"	E 75° 25' 34.36"
C	N 15° 53' 33.14"	E 75° 25' 35.95"
D	N 15° 53' 28.47"	E 75° 25' 52.87"
E	N 15° 53' 26.47"	E 75° 25' 52.88"
F	N 15° 53' 30.02"	E 75° 25' 37.16"
G	N 15° 53' 30.72"	E 75° 25' 35.64"
H	N 15° 53' 27.55"	E 75° 25' 13.11"

#	Item	Details
	Plot/Survey/Khasra No.	Adj. Sy. Nos. 133, 135, 131, 128, 126, 125, 146, 132, 131, 127, 126, 125, 123 & 122(P)
	Village	Sangala Village
	Tehsil	Ramdurg Taluk
	District	Belagavi
	State	Karnataka
10	Nearest railway station/airport along with distance in kms.	Holealur Railway Station- 24.0 Km
11	Nearest Town, city, District Headquarters along with distance in kms.	Ramdurg (Taluk head quarter) : 15.0 Km
12	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal addresses with telephone nos. to be given)	-

#	Item	Details
13	Name of the applicant	**Sri. Abhishek B. Iliger**
14	Registered Address	S/o. Sri. Basavaraj H. No. 182/6, Plot No. 10/11 Vidhya Nagar, 1st Cross Near Green Park Youth Club Road Gokak, Belagavi, Karnataka- 591 307
15	Address for correspondence:	**Sri. Abhishek B. Iliger** S/o. Sri. Basavaraj H. No. 182/6, Plot No. 10/11 Vidhya Nagar, 1st Cross Near Green Park Youth Club Road Gokak, Belagavi, Karnataka- 591 307
	Name	Sri. Abhishek B. Iliger
	Designation (Owner/Partner/CEO)	Owner
	Address	Same as above
	Pin Code	591307
	E-mail	enviprogroup@gmail.com
	Telephone No.	080 29770188
	Fax No.	-
16	Details of Alternative Sites examined, if any. Location of these sites should be shown on a topo sheet.	Site specific project.
17	Interlinked Projects	None
18	Whether separate application of interlinked project has been submitted?	N.A
19	If yes, date of submission	N.A
20	If no, reason	N.A
21	Whether the proposal involves approval/clearance under: If yes, details of the same and their status to be given. (a) The Forest (Conservation) Act, 1980? (b) The Wildlife (Protection) Act, 1972? (c) The CRZ Notification, 1991?	N.A
22	Whether there is any Government Order/ Policy relevant/ relating to the site	Taluk/ District Sand Monitoring Committee have identified the sand block & certified copy of sketch & Gazette Notification are enclosed.
24	Whether there is any litigation pending against the project and/or land in which the project is propose to be set up? (a) Name of the court (b) Case No. Orders/directions of the Court, if any and its relevance with the proposed project.	None
23	Forest land involved (hectares)	Nil

(II) Activity

1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)

#	Information/ Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	Yes	Temporarily the river bed will be used for sand extraction purpose, which will be replenished during the next monsoon
1.2	Clearance of existing land, vegetation and buildings?	No	None
1.3	Creation of new land uses?	No	None
1.4	Pre-construction investigations e.g. bore houses, soil testing?	Yes	Test Pits will be excavated
1.5	Construction works?	No	None
1.6	Demolition works?	No	None
1.7	Temporary sites used for construction works or housing of construction workers?	No	Only Local labors
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	No	None
1.9	Underground works including mining or tunneling	Yes	Extraction of Sand only from the Surface
1.10	Reclamation works	No	None
1.11	Dredging	No	Not required
1.12	Offshore structures	No	Not required
1.13	Production and manufacturing processes?	No	N.A
1.14	Facilities for storage of goods or materials?	Yes	Excavated sand will be temporarily stored in the identified area, within the buffer zone of the sand block
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	No	N.A
1.16	Facilities long term housing of operational workers?	No	Only local workers
1.17	New road, rail or sea traffic during construction or operation?	Yes	Road traffic may marginally increase.
1.18	New road, rail, air, waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	Yes	No need
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	None
1.20	New or diverted transmission lines or pipelines?	No	N.A

#	Information/ Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourse or aquifers?	No	Extraction of sand will channelize the water stream, over a period of years, thereby improving its performance.
1.22	Stream crossings?	No	None
1.23	Abstraction or transfers of water from ground or surface waters?	No	Water will be purchased from the tankers locally.
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	Yes	Extraction of sand will be done leaving 12.5% of the width (min.) on either side of the stream, for better channelization of the water during rainy season.
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	Extracted sand will transported through dumpers/ tractors.
1.26	Long-term dismantling or decommissioning or restoration works?	No	Not Applicable
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	Not Applicable
1.28	Influx of people to an area in either temporarily or permanently?	No	Local people will be deployed
1.29	Introduction of alien species?	No	None
1.30	Loss of native species or genetic diversity?	No	None
1.31	Any other actions?	No	None

2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):

#	Information/ Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)	No	The proposed land is government land, in the river bed.
2.2	Water (expected source & competing users) unit: KLD	Yes	3,000 Ltrs/day for dust suppression & 110 Ltrs/day for Drinking purposes
2.3	Minerals (MT)	Yes	Extraction of River sand to the tune of 45,400 Tons/year
2.4	Construction material - stone, aggregates, and / soil (expected source - MT)	No	None
2.5	Forests and timber (source - MT)	No	Not Required

#	Information/ Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
2.6	Energy incl. electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	No	Not Required
2.7	Any other natural resources (use appropriate standard units)	No	None

3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

#	*Information/ Checklist confirmation*	*Yes/ No*	*Details thereof (with approximate quantities/ rates, wherever possible) with source of information data*
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	No	Only diesel & lubricating oils will be used for transporting vehicles.
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	Yes	If proper hygiene is not maintained, then insect & water borne diseases may affect the workers and local villagers. Proper training regarding health & hygiene will be provided to the workers and also to the villagers.
3.3	Affect the welfare of people e.g. by changing living conditions?	Yes	Living conditions will improve due to generation of more employment to local youth.
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	None
3.5	Any other causes	No	None

4. Production of solid wastes during construction or operation or decommissioning (MT/month)

#	Information/ Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes	Yes	25,225 Tonnes for 5 years
4.2	Municipal waste (domestic and or commercial wastes)	No	No Food waste/ commercial waste.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	No	N.A
4.4	Other industrial process wastes	No	No waste generated

#	Information/ Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
4.5	Surplus product	No	No Surplus product
4.6	Sewage sludge or other sludge from effluent treatment	No	None
4.7	Construction or demolition wastes	No	N.A
4.8	Redundant machinery or equipment	No	None
4.9	Contaminated soils or other materials	No	None
4.10	Agricultural wastes	No	There is no generation of agricultural wastes
4.11	Other solid wastes	No	None

5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)

#	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	The transportation vehicles use Diesel, which will result in emissions, whenever operated.
5.2	Emissions from production processes	No	None
5.3	Emissions from materials handling including storage or transport	Yes	Minor fugitive dust emissions from material handling
5.4	Emissions from construction activities including plant and equipment	No	None
5.5	Dust or odors from handling of materials including construction materials, sewage and waste	Yes	Some amount of dust during collection and transportation of sand and vehicle movement
5.6	Emissions from incineration of waste	No	N.A
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	N.A
5.8	Emissions from any other sources	No	None

6. Generation of Noise and Vibration, and Emissions of Light and Heat:

#	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	No	Expected noise levels are only during transportation. Noise level will not exceed permissible limits.
6.2	From industrial or similar processes	No	No such process is proposed.
6.3	From construction or demolition	No	None
6.4	From blasting or piling	No	N.A

#	Information/ Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
6.5	From construction or operational traffic	Yes	Minor Noise may take place, due to movement of the transportation vehicles
6.6	From lighting or cooling systems	No	N.A.
6.7	From any other sources	No	Not envisaged

7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:

#	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	No	None
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	None
7.3	By deposition of pollutants emitted to air into the land or into water	No	Only SPM
7.4	From any other sources	No	None
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	None

8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment

#	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	No	None
8.2	From any other causes	No	N.A.
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods earthquakes, landslides, cloudburst etc)?	No	N.A.

9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality

#	Information/Checklist confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
9.1	Lead to development of supporting facilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: ❖ Supporting infrastructure (roads, power ❖ housing development ❖ extractive industries ❖ supply industries ❖ Other	Yes	Supporting infrastructure like roads, alternative business opportunities etc may marginally improve.
9.2	Lead to after-use of the site, which could have an impact on the environment	Yes	As sand mining will be done along the centre of the stream, it will channelize the water flow and avoids flooding. Also, embankment erosion will be reduced.
9.3	Set a precedent for later developments	No	Not Applicable
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	Not Applicable

(III) Environmental Sensitivity

#	Areas	Name/ Identity	Aerial Distance (within 15 km.) Proposed Project Location Boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	No	The area is not covered under any international conventions
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Yes	The project lies on Malaprabha River Kolchi right bank canal : 1.6 Km SW Kagi Halla : 9.8 Km SW Bellikandi lake : 12.9 Km N Hosur lake : 7.65 Km WNW Mudkavi lake : 9.7 Km NW Jaul Halla : 3.65 Km SE Bhairanahatti lake : 13.1 Km SSE Idgal RF : 6.3 Km NW Chimmanakatti RF : 3.5 Km NE Tapaskatti RF : 7.3 Km NE Honali Gudda RF : 11.75 Km N Khanapur RF : 9.6 Km NNW

#	Areas	Name/ Identity	Aerial Distance (within 15 km.) Proposed Project Location Boundary
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	Not Applicable
4	Inland, coastal, marine or underground waters	No	None
5	State, National boundaries	No	None
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	No	None
7	Defense installations	No	Nil
8	Densely populated or built-up area	Yes	Ramdurg - 15.0 Km
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	No	None within 250 m Radius
10	Areas containing important, high quality or scarce Resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Agricultural lands are nearby & forest lands are close by.
11	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	No	Not Applicable
12	Areas susceptible to natural hazard which could cause the project to present environmental Problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions).	No	Ordinary sand extraction along the stream boundary, may lead to erosion. Hence, it is limited only to the middle 3/4th width of the river. Also, near the bridges, sufficient buffer zone on the upstream/ downstream will be maintained.

(IV). B2 Category Project, Environmental Management Plan, with the following chapters is being enclosed along with:

Chapter-1 - Introduction

This chapter provides background information of the project, brief description of the area, significance of the project and format of the report.

Chapter-2: Project Details

This chapter deals with the proposed quarry location, machinery used for quarrying, infrastructure requirements etc.

Chapter-3: Environmental Conditions

In this chapter, the climatological conditions of the proposed area, present environmental conditions with specific reference to the flora and fauna of the region, aquatic fauna are presented.

Chapter-4: Environment Management Plan (EMP)

This chapter provides environment management plan aimed at minimizing the adverse environmental impacts due to proposed activity. The impacts along with the mitigative/ control measures are elaborated. The Monitoring programme of various environmental attributes has also been included.

Chapter-5: Risk Assessment and Disaster Management Plan

This chapter deals with possible hazards associated with the proposed activity. This also includes mitigation and control measures along with the occupational health and safety.

Declaration of the Project Proponent:

I hereby give an undertaking that the data and information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance given, if any to the project will be revoked at our risk and cost.

Date: 08.12.2017

Place: Ramdurg

Sri. Abhishek B. Iliger
S/o. Sri. Basavaraj
H. No. 182/6, Plot No. 10/11
Vidhya Nagar, 1st Cross
Near Green Park Youth Club Road
Belagavi, Karnataka, INDIA

PRE-FEASIBILITY REPORT FOR

Ordinary Sand Mining

In Block-1, 22-00 Acres of Govt. Land
Adj. Sy. Nos. 133, 135, 131, 128, 126, 125, 146,
132, 131, 127, 126, 125, 123 & 122(P)
of Sangala Village
Ramdurg Taluk
Belagavi District, Karnataka

By
Sri. Abhishek B. Iliger
S/o. Sri. Basavaraj
H. No. 182/6, Plot No. 10/11
Vidhya Nagar, 1st Cross
Near Green Park Youth Club Road
Gokak, Belagavi, Karnataka- 591 307

CONTENTS

1. EXECUTIVE SUMMARY

- As per the Orders of the National Green Tribunal Principal Bench, New Delhi, dated 05 Aug 2013, the Ministry of Environment & Forests (MoEF) had issued an Office Memorandum vide No. J-13012/12/2013-IA.II(I) dated 24th Dec. 2013, stipulating that river sand mining shall obtain the Environmental Clearance from MoEF or concerned State Environmental Impact Assessment Authority (SEIAA), as the case may be.
- Further to the above, the Ministry of Environment, Forests & Climate Change (MoEFCC), Govt. of India, had issued a Gazette Notification vide No. S.O.141 (E), dated 15th January 2016, and formed the District Level Environment Impact Assessment Authority (DEIAA), with the concept of decentralization, and empowered them to issue Environmental Clearances for **all individual Minor Mineral Proposals** (including river sand) **with extent of < 5 Hectares** and **cluster of leases** (i.e. all leases falling within 500 m radial distance, of a homogenized mineral area) **upto 25 Hectares, with no individual lease > 5 Hectares**.
- All individual minor mineral proposals of > 5 Hectares extent, clusters with any individual lease of > 5 Hectares and cluster with total area > 25 Hectares, fall under the purview of SEIAA, for issuance of Environmental Clearance.
- To do the extraction of sand from the River Beds, in the state of Karnataka, the Government of Karnataka (GoK) had issued a Gazette Notification vide No. 1007, Part: IVA, dated 12th Aug. 2016, authorizing the concerned District Sand Monitoring Committee as the nodal agency for auctioning the identified River Sand blocks, to prospective bidders, as per the set guidelines in the said Gazette Notification, in their respective districts of the state.
- Further, the Gazette Notification dated 12th Aug 2016 of Karnataka, states that the Successful Bidder shall prepare the Quarry Plan and obtain the Environmental Clearance from DEIAA or SEIAA, as the case may be.
- The proposed river sand Block (Block No.1) is located along Malaprabha River, near Sangala Village, Ramdurg Taluk, Belagavi District, has been allocated to Sri. Abhishek B. Iliger, for a period of Five (05) years.

- The stream carries huge quantity of sediment consisting of stones, gravels and sand during every monsoon. The material shall be removed every year.
- Block No.1 has an extent of 22-00 Acres (8.90 Ha.). The estimated quantity of extractable volume of river sand from this block is about 2,27,000 Tons.
- The Geographical positions of the Proposed Block No.1 are given below. The elevation of the proposed site ranges from 552m to 550 m (Dry Weather Flow Level) w.r.to AMSL.

	Latitude	Longitude
A	N 15° 53' 29.39"	E 75° 25' 11.89"
B	N 15° 53' 33.70"	E 75° 25' 34.36"
C	N 15° 53' 33.14"	E 75° 25' 35.95"
D	N 15° 53' 28.47"	E 75° 25' 52.87"
E	N 15° 53' 26.47"	E 75° 25' 52.88"
F	N 15° 53' 30.02"	E 75° 25' 37.16"
G	N 15° 53' 30.72"	E 75° 25' 35.64"
H	N 15° 53' 27.55"	E 75° 25' 13.11"

- Within 5 km from the boundary of the proposed site, there are no (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as identified by the Central Pollution Control Board from time to time, (iii) Eco-sensitive areas as notified under section 3 of the Environment (Protection) Act, 1986 and (iv) inter-State boundaries and international boundaries.
- The proposed project incorporates simple semi-mechanized open-cast method of ordinary sand mining from dry riverbed up to maximum depth of 1.0 meter (max) by employing local labors and some earth moving equipment. Mining will not be carried out during monsoon season. The mining process involves method of digging, scooping and excavating with the help of certain earth moving equipments like JCB /excavator etc. and the removed sand will be loaded into trucks for transporting. The deposit is replenished every year. Sands and boulders will be deposited from upstream of the stream.
- The extraction / removal of the deposited sand from the river/ stream may be made leaving 12.5% width of the river/ stream on either side of the river as suggested in the Karnataka State Gazette Notification (dated 16th Dec 2013) for extraction of river bed material. The recommendation to the middle 3/4th of the

river is to ensure the stability of the river bank as suggested by the Govt. and also to rehabilitate the reclaimed area. This would help in channelization and centralization of the river.

- No habitation is required to be disturbed from the mining area. Therefore, no Rehabilitation and Resettlement plan is envisaged.

The salient features of the proposed river sand block are given below:

Proponent	:	**Sri. Abhishek B. Iliger** S/o. Sri. Basavaraj H. No. 182/6, Plot No. 10/11 Vidhya Nagar, 1st Cross Near Green Park Youth Club Road Gokak, Belagavi, Karnataka- 591 307		
Quarry Extent	:	22-00 Acres (8.90 Ha.)		
Quarry Type	:	Open Cast Semi-mechanized Method		
Material	:	Ordinary Sand		
Block No.	:	1 of Malaprabha River		
Region	:	Sangala Village		
Taluk/ Tehsil	:	Ramdurg		
District	:	Belagavi		
State	:	Karnataka		
Reserves	:	Total Geological Reserves : 5,29,693 Tonnes Total Mineable Reserves : 2,27,011 Tonnes		
Proposed Production	:	Year	Saleable Sand (90 %) MT	Wastage (10 %) MT
		First	45,400	5,045
		Second	45,400	5,045
		Third	45,400	5,045
		Fourth	45,400	5,045
		Fifth	45,400	5,045
		Total	**2,27,000**	**25,225**
		Average	45,400	5,045
Recovery of Product Considered	:	90 % (Balance 10 % will be rejects)		

2. INTRODUCTION

2.1 Identification of the Project Proponent:

Sri. Abhishek B. Iliger has proposed Ordinary sand quarry over an area of 22-00 Acres in Block No. 1 along Malaprabha River Bed, adjacent to Sy. Nos. 133, 135, 131, 128, 126, 125, 146, 132, 131, 127, 126, 125, 123 & 122(P) of Sangala Village, Ramdurg Taluk in Belagavi District.

The collection and marketing of minor minerals (Sand, pebbles and boulders) from the riverbeds has been undertaken in order to protect the inhabitation from the havoc of floods. The collection and marketing system is being converted from volume base to weight basis for the disposal of minor mineral, in the major rivers of the state. The implementation of advanced computerized technique of minor mineral weighing system is a step towards advancement and use of new technology.

2.2 Nature of the Proposal

The Present Proposal is Open Cast Semi-mechanized Method from the dry surface of Malaprabha River. As per the Gazette Notification Dated 15th January 2016, issued by MoEFCC, New Delhi, the proposed mining project is categorized as Category 'B2' project under 1(a) activity of EIA Notification, and falls under the purview of SEIAA.

The proposed Ordinary sand mining site is located near Sangala Village, Ramdurg Taluk, Belagavi District of Karnataka state. The material is proposed to be removed every year, during non-flood seasons, for next five years.

2.3 Conditions of Mining:

The Government of Karnataka, vide its Gazette Notification No. 1345 (Part-IVA) dated 16th Dec 2013, had issued certain amendments to the Karnataka Minor Mineral Concession Rules. As per that, to ensure the safety of river beds, river embankments, roads, railways, bridges, structures and adjoining areas etc., no quarry operations or workings shall be carried on or permitted to be carried on by a mineral concession holder, in the following areas:

1 Within a distance of 500 meters upstream/downstream of any high level bridge and 250 meters upstream/downstream of other bridges.

2 Within a distance of 100 meters inside/outside any flood protection embankment (Bundh). Railway administration concerned.

3 Safety distance as per MoEF guidelines from any or 50 meters from highway.

4 50 meters from any reservoir, tank, canal or other public works such as public roads and buildings or inhibited sites (except with the previous permission in writing of the Government or such other officer, authorized by it in this behalf) otherwise than in accordance with such instructions, restrictions and conditions either general or special which may be attached to such permission.

5 In the case of village roads no workings shall be carried on within a distance of 250 meters except with the previous permission in writing of the government or any officer, duly authorized by it in this behalf;

6 The said distances shall be measured in the case of a railway, reservoir, drain or canal horizontally from the outer toe of the bank or the outer toe of the bank or the outer edge of the cutting, as the case may be, in the case of a bridge, road or highway from the outer edge of the right of way, and in the case of a building horizontally from the plinth thereof.

7 No quarrying operations or workings shall be carried on or permitted to be carried on by a Mineral Concession Holder up to any point within 7.5 meters from the outer periphery of adjoining private/ Government land.

8 The depth of mining in the river bed shall not exceed 3 meters or water level whichever is less, measured from the un-mined bed level at any point in time with proper bench formation.

9 The depth of mining in plane areas shall not exceed 3 meters or water level whichever is less, measured from the un-mined adjoining ground level.

10 If width of the river is less than 120 meter the mining will be restricted within the bed of river.

11 If the width of the river is more than 120 meter, the mining will be restricted after leaving a strip of 30m wide from the edge of embankment on either side of the river bed.

12 The mining will not be allowed below the water table.

13 Benches are formed in accordance with regulation 106 of Metalliferrous Mine regulations, 1961, the max. permissible depth of the quarry pit will be 3 mts.

14 The contractors will abide by the provisions of all applicable Acts and Rules. The contractor with the satisfaction of competent authority will provide drinking water, rest shelter, first aid box, welfare facilities as per Central and State Govt. labour laws.

15 The river bed areas dug during one season i.e., other than rainy season will get refilled sand deposit in rainy season in which the material so deposited will be available for fresh quarrying.

16 The contractors will abide by the State Minor Mineral Concession Rules, 2013.

2.4 Need of the Project

A Stable river is able to consistently transport the flow of sediment produced by the watershed such that its dimensions (width and depth), pattern and vertical profile are maintained without aggrading (building up) or degrading (Scouring down). The amount of boulders, pebbles and sand deposited in riverbed equal to the amount delivered to river from the watershed and from bank erosion minus amount transported downstream each year. The river is likely to take a parabolic shape due to mining. It will not happen in a year or two but the extraction / Removal like this for many years may lead to this ideal situation.

The demand of crushed stone and sand in the area is increasing day by day both for private construction activities and infrastructure development by the government agencies. The State Government has launched several projects of road construction, road widening, bridge construction and buildings. Thus, the stone (after crushing) and sand extracted from the mining area contribute to the development of infrastructure and prosperity of the area/region. The mining activities are the backbone of all construction and infrastructure project as the raw material for construction is available only from such mining. Thus, the mining being done support demand for sand in the area. Also collection and marketing of sand from the riverbeds will help in protecting the land, agricultural crops and inhabitation from floods.

2.5 Demand and Supply

As mentioned above, there is large demand of sand and aggregates for construction activities in the region. It is the essential raw material for construction of building, check dams, roads, bridges etc. Presently there is a shortage in supply of these materials as compared to the demand.

2.6 Imports, Indigenous Production

This is indigenous production. This will be neither exported nor imported.

2.7 Domestic Market

The demand for stone and sand is limited to regional domestic market only.

2.8 Employment Generation

The mining activity in the area will provide direct employment to about 11 persons engaged in extraction of sand and one Supervisor will take care of the safe working of the labour. The mined/extracted material will be loaded manually in tractor, trucks etc., for transportation. The labors for the mining activities will be deployed from neighboring villages. Indirect employment will also be generated through allied activities such as transportation and utilization of material for development activities like building, road, bridges construction, etc.

3 PROJECT DESCRIPTION

3.1 Type of Project

The proposed project is a mining project for extraction and collection of sand from the Malaprabha River. The pits created due to extraction and collection of material from the mine area will be replenished during the monsoon, due to eroded material brought down from the catchment area and upstream of the river due to flow rate/rain fall in the catchment area.

3.2 Location

The proposed river sand mining block, designated as **"Block No.1"**, is located along Malaprabha River. The location details of the proposed Block No.1 are given below:

Location Details of Block No. 1

Name of river	:	Malaprabha River
Village	:	Sangala
Taluk& District	:	Ramdurg
District	:	Belagavi
State	:	Karnataka
Nearest Town and District HQ	:	Ramdurg (Approx. 15 km) & Belagavi (Approx. 99 km)
Nearest Railway Station	:	Holealur (Approx. 24 km)
Nearest National Park, Wildlife Sanctuary, Biosphere reserve, any other sensitive location, etc.	:	None within 5 km radial distance

Basis of Site Selection

The mine area is already allotted to Sri. Abhishek B. Iliger and Ordinary sand mining will be started after obtaining the necessary clearances. The salient features of the area are:

- The mine area is a river bed.
- The land is neither suitable for agriculture nor for plantations and there is no forest cover in the mine area.

The monsoon rains set in motion the process of erosion of the rocks in the catchment area. Erosion is the set of all processes by which the soil and rocks are loosened and moved downhill or down slope. The splash erosion by the rain drop loosens the soil,

joints, fractures, matrix of the coarsely bedded and jointed sandstone. The most important process of erosion is due to running water. Erosion by running water acts in two basic forms: Overland flow and channel flow. Runoff starts as a broad sheet. The sheet exerts a drag force over the ground surface and some weathered products may be removed. The amount of erosion of a slope depends on:

- Area and relief catchment of the river
- The length and steepness of the slope
- The rainfall intensity
- The amount of vegetation cover

Erosion only occurs when the stream has an excess energy (Flood situation). Some energy is also spent in transporting load previously acquired. Erosion will result, if the energy available is more than the cohesion of particles.

Deposition results when a loss of energy results in a decrease of velocity. This may be due to declining gradient, a decrease in water volume, an increase in cross sectional area, or by local obstructions. An excessive load produced by increased erosion in the drainage basin or tributary valleys, will also inevitably lead to deposition. The accumulations of the stream deposited are called alluvium.

Based on catchment area, the sand yield comes out to be 54,876 Tons/ Year. The detailed calculation is provided in Page No. 13-14 of the approved Quarry Plan.

3.3 Alternate Site

No alternate sites/location are considered as the proposed site is specific for surface mining and mining activity is already in progress for the last few years.

3.4 Magnitude of Operation

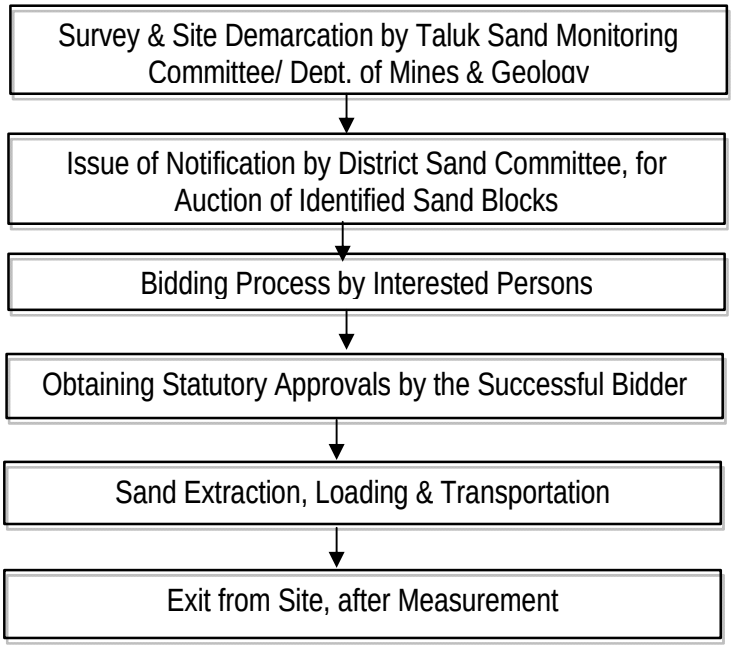
The area earmarked as Block No. 1, for the Ordinary sand extraction at Sangala site is 22-00 Acres (8.90 Ha.). The estimated quantity of extractable volume of river sand from this Block is 2,27,000 Tons, in the first five (05) years period. The year-wise estimates of mineable capacity of Block No.1 during the next 5 years, is given below:

Volume of Extractable River Sand from Block No. 1

Year	Plan Area (In m^2)	Depth (In m)	Volume (In m^3)	Specific Gravity (In Ton/CuM)	Total In Tonnes	Recovery of sand @ 90 % in Tonnes	Waste @ 10 % in Tonnes
I.	29,674	1.00	29,674	1.70	50,445	45,400	5,045
II.	29,674	1.00	29,674	1.70	50,445	45,400	5,045
III.	29,674	1.00	29,674	1.70	50,445	45,400	5,045
IV.	29,674	1.00	29,674	1.70	50,445	45,400	5,045
V.	29,674	1.00	29,674	1.70	50,445	45,400	5,045
Total					**2,52,225**	**2,27,000**	**25,225**

3.6 **ProjectDescription**

As per Environmental Impact Assessment Guidance Manual for 'Mining of Minerals', released by MOEF, the project is a surface mining. The typical operation involved in a surface mining is shown in the figure given alongside.



The project does not involve any processes such as overburden removal, drilling, blasting and beneficiation. The mining process involves collection of material by simple hand tool such as shovel pans and crowbars. This followed by sorting and manual picking, stacking and loading into trucks/tractor-trolley for transporting. The pits from where the material is picked are not deeper than 1.0 meter as allowed in mining area and shall follow the normal channel direction of the river. These pits will get replenished during monsoon.

The wastes like silt/clay, pebbles etc., will be used for strengthening of the river banks. Mining will be carried out only during the day time. **Extraction of sand and stone material will be completely stopped during the monsoon season**.

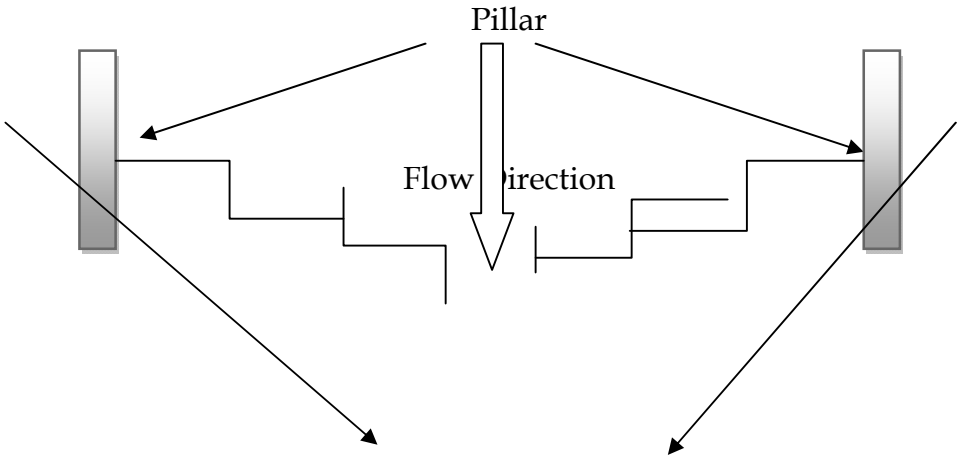
The water required is only for drinking purpose and toilet needs of workers, for which suitable facilities will be provided at the proposed site. The water is further required for sprinkling on haulage road which is done twice a day once in morning and once in evening with a tanker. The total water demand has been calculated as 3,110 liters/day.

The quantum of sand deposition in the river bed depends on various factors such as topography, bed gradient, soils, rainfall etc. The material is transported through the high velocity flow and is deposited in downstream portion where the bed slope is mild. The salient features of the mining activities are as given below:

- Working during day time only; i.e. Sunrise to Sunset only
- No explosives used;
- No constructions will be done at site expect for construction of initial temporary shelter house.
- No water intake from river. Water will be supplied by tankers from outside sources.
- No machineries will be used.
- Mining will be completely stopped during monsoon season; and
- Mining will be done only along the center of the river leaving a margin of 12.5 % on both sides which will help in proper channelization of the river.

Methodology of Extraction of River Sand

The extraction/removal of the deposited Ordinary sand from the streams/ rivers may be made leaving 12.5 % width of the river on either side of the river. The recommendation to restrict the flow to the middle 3/4th of the river is to ensure the stability of the river bank. This would help in channelization and centralization of the river which is very much relevant from river turning point of view. In absence of the periodically channelization / centralization of the river material deposited, the tendency of periodically flooding of the adjoining area on the river bank exists. It further accelerates the stream bank cutting also.



The extraction / removal of the deposited Ordinary sand should be executed in a scientific manner which will help in channelization / centralization of the river flow. The maximum depth of cut should be from the middle of the river course and it should be nil at the boundary of the river.

If this method is adopted, the river is likely to take a parabolic shape. It will not happen in a year or two but the extraction/removal like this for years may lead to this ideal situation. However the river material brought due to heavy discharge in a particular year of long duration probably may hamper this.

3.5 **Recommendations**

The method and depth of extraction of Ordinary Sand to be made, will depend upon the pattern and quantity of sand deposited during the monsoon. Hence the quantity of Ordinary sand extraction will be estimated by surveying the river before the monsoon.
The very big boulders in the river should not be removed from the junction of the hilly area and plain area as this big boulders serve for dissipating the energy of the flowing water.

It is suggested to erect permanent pillars on the both side of the river at desired distance, as permanent bench post. Further the pillars constructed to demarcate the width of extraction leaving 12.5 % of the river width from the bank may be erected with a depth of 1.5 m below the ground level and 1.2 m above the ground. Probably this may not be carried over by river during monsoon and hence reduced the periodical construction of pillars every year. However, initially only 5-6 such pillars may be

erected to observe the stability. While erecting pillar, the corner of the pillar may face upstream.

3.6 **Mode of Transport of Minerals**

The mode of transportation of extract will be Tractors, Trucks and Carts. The estimated average total no. of trucks/tractors/carts engaged in transportation of minerals in Block No.1 of Sangala Village in Belagavi district will be approximately 6 in numbers.

3.7 **Availability of Water, Energy / Power Requirement**

Approximately 3,110 liters of Water will be consumed every day, of which about 110 litres/day will be for drinking & toilet needs of the workers. For dust suppression along the haulage roads, it is proposed to sprinkle the water and a provision of about 3,000 litres/day is made towards the same. The water requirement will be met from the nearby private land borehole water and will be stored in water container. There will be no electric power consumption as the extraction will be done using diesel operated machineries.

3.8 **Waste Generation**

During the extraction of sand, the waste proposed to be generated is top soil debris, pebbles, boulders etc., which is about 25,225 tonnes which will be stacked temporarily and is proposed to be used for leveling of roads, left over quantity of waste will be used for infrastructural purposes.

4 SITE ANALYSIS

4.1 Connectivity

The proposed river sand mine area is well connected to the Taluk Headquarter, Ramdurg is located at about 15 km & the District Head Quarter, Belagavi is located at about 99 km from the proposed site. The nearest Railway Station is Holealur at a distance of 24 km and the nearest airport is Belagavi Airport, Belagavi, approx. 86 km away from the mining area.

4.2 Topography

The proposed River Sand Mining Block is covered in Survey of India Topo-Sheet No. 48/M/5 with the following topographic features:

- The applied quarry lease area is Block No. 1 within the village limits of Sangala along Malaprabha River
- The Stream of Malaprabha River is having a mild slope from West to East
- No major road passes through the proposed area.
- No human settlements within or in the close vicinity of the area. The nearest village Sangala at a distance of 1.0 km from the proposed site.
- The drainage pattern of the buffer zone is dendritic to sub-dendritic in nature. No perennial nallah or streams in the buffer zone. Only during monsoon for about 5 months the water flows in the river.
- The highest elevation is in the South-west portion and the lowest elevation is in the North-East portion of the block having an elevation of 552 m to 550 m (Dry Weather Flow Level). The difference in altitude is about 2 m.

4.3 Existing Land Use Pattern

The proposed Sand Block is not a forest land and is very far from the coastal area. There are no national parks, wild life sanctuaries & identified ecologically sensitive areas within 5 Km radial distance from the proposed block.

4.4 Existing Infrastructure

The proposed Sand Block is approachable through a mud road which can be drivable in the dry season. Necessary site office, workers rest shelter etc., may need to be developed during operational phase.

4.5 Social Infrastructure Available

The proposed sand mining area is well connected by road to the Taluk Head Quarter, by an all-weather Road. All educational, banking, recreational and medical facilities and other infrastructure are available in a vicinity of 15-20 km from the proposed sand mining area.

5. PLANNING

5.1 Planning Concept

The project falls under the 'Mining Industry'. The raw materials such as Stone and Sand are available in this area are being granted for mining purpose. The required semi-skilled and unskilled laborers are locally available. For transportation of materials/minerals, transporting means such as tractor, tipper trucks etc. will be deployed. These are readily available from the adjoining villages on hire.

5.2 Population Projection

The requirements of skilled/semiskilled/unskilled workers direct as well as indirect, for mining, excluding the transportation of minerals, will be around 11 in numbers. The workers directly engaged for mining activity will be deployed for collection of minerals and loading it in to tractor/trucks/cart. The proposed project will give fruitful employment to the local workers and help in stemming or at least reducing the migration of such workers to urban centers from the adjoining villages.

5.3 Land-Use Planning

The mining area during the monsoon season remains under flowing water cannot be fragmentized for Green belt. The mining activities will be carried out during the dry season only. The land-use pattern of the proposed area is as under:

Sl. No.	Description	Landuse at the end of Scheme Period (In A-G)
1	Mining Area	22-00
Total		**22-00**

5.4 Assessment of Infrastructure demand

Considering a daily average saleable production of 227 Tons of sand, to be moved from the proposed site, the transportation of this material will not put any substantial load on the existing road or other local infrastructure.

5.5 Amenities/Facilities/Labour Welfare Scheme

The following activities are proposed for the welfare of laborers engaged in the extraction of Ordinary sand in the proposed Sand blocks of Belagavi District:

Registration of Laborers: All the laborers shall be registered at the mining gate by the staff of Public Works Department and individual photo identity cards shall be issued.

Drinking water: Tankers will be deployed for the supply of drinking water.

Organizing of Health Camps: One health camp shall be held after every six months during the lease period.

First Aid Kit: First Aid kit shall be kept at the mining area.

Helmet and Mask: Safety industrial helmet shall be provided to every laborer engaged in the collection of Ordinary sand. For the protection against dust, nose masks shall be provided to each and every laborer.

Sprinkling of Water: Water sprinkling on roads shall be carried out to settle the dust aroused from the mineable area and from the movements of the trucks/tractor during transportation of the mined minerals. This shall be done by spraying water by engaging of water tankers 1-2 times a day and the sprinkling of water on roads shall be carried out as and when required.

6. PROPOSED INFRASTRUCTURE

6.1 General

The large-scale extraction of stream bed materials, mining and dredging below the existing streambed, and the alteration of channel-bed form and shape leads to several impacts such as erosion of channel bed and banks, increase in channel slope, and change in channel morphology. These impacts may cause: (1) the undercutting and collapse of river banks, (2) the loss of adjacent land and/or structures, (3) upstream erosion as a result of an increase in channel slope and changes in flow velocity, and (4) downstream erosion due to increased carrying capacity of the stream, downstream changes in patterns of deposition, and changes in channel bed and habitat type. Excessive Sand mining also affects the adjoining groundwater system and the uses that local people make of the river.

6.2 Industrial Area

The proposed sand block does not involve any processing. There are no production & manufacturing processes involved in sand mining.

6.3 Residential Area

The labors for the mining activities will be deployed from neighboring villages. Indirect employment will also be generated through allied activities such as transportation and utilization of material for development activities like building, road, bridges construction, etc. As the project will be deploying local workers for the mining as well as the transportation of the mineral, no infrastructure for their residential purposes is needed.

6.4 Green Belt

Planting a suitable combination of trees that can grow fast and also have good leaf density shall be adopted to develop the green belt. It will act like a buffer to trap the airborne dust and also reduce the noise levels. From the aesthetic point of view also, this will have a positive impact. About 100 No's of plants per annum will be planted during mining activities along the river banks and civic amenities in consultation with local authority/ Govt. Body.

6.5 Social Infrastructure

Existing roads will be maintained regularly. This may help in improvement of public transport system. The local people will get employment opportunities, better medical and educational facilities etc., mainly due to the mining operation from this project. In addition to this the literacy rate and better living standards shall increase due to the enhanced earning capacity of villagers.

6.6 Connectivity

The proposed river sand mine area is well connected to the Taluk Headquarter is located at about 15 km & the District Head Quarter Belagavi is located at about 99 km from the proposed site. The nearest railway station is Holealur at a distance of 24 km and the nearest airport is Belagavi Airport, approx. 86 km away from the mining area.

6.7 Drinking water

The drinking water supply to the workers shall be made available all the times to the mine workers and this will be sourced by water tankers available locally.

6.8 Sewerage System

Suitable sanitary facilities will be provided.

6.9 Power Requirement

No major power requirement. All the sand mining activities will be carried out by semi-mechanized open cast method. There is no power requirement for the project as light loading machinery like JCB (if used) will run on diesel & the operation will be done only from sunrise to sunset.

7. REHABILITATION AND RESETTLEMENT PLAN

It is entirely a government land, allotted to Sri. Abhishek B. Iliger where the mining work will be started after obtaining necessary clearances. The area being the part of river bed and as such there are no inhabitants in the proposed mining area. Hence, no habitation is required to be disturbed due to the proposed mining activities. Hence no Rehabilitation & Resettlement Plan is envisaged.

8. PROJECT SCHEDULE AND COST ESTIMATES

The work in proposed river sand mining block would be started as soon after obtaining the Environmental Clearance and Consent to Operate from concern department after the procedure of disposal of sand blocks through tender as per KMMC Rules-2013. The proposed riverbed mining project is likely to get operational by December, 2017.

The estimated capital cost of river sand mining, in the proposed block will be to the tune of Rs. 14 Lakhs, of which about 1-1.4 Lakhs will be towards environmental protection and pollution control.

9. ANALYSIS OF PROPOSAL

The urban sector in India present on attractive investment proposition. Increased disposable incomes, easy availability of loans and a general reduction in applicable interest rates coupled with encouragement to genuine buyers by central government in the form of income tax benefits are some of the factors that have fuelled demand for quality urban infrastructure developments.

The liberalization of the regulatory regime by permitting Foreign Direct Investment (FDI) in India offers foreign investors an opportunity to exploit the potential of this development. Moreover, the urban population is continuously increasing and as a result the infrastructure shortfall is also huge. The Government is therefore encouraging housing projects.

Similar initiates are also being taken up in road sector by National Highway Authority of India and Ministry of Transport.

Achieving such a huge infrastructure requires basic building materials and sand is one of the primary building materials required for the purpose. The sand mining activities are the backbone of all construction and infrastructure projects as the raw material for construction is available only from such mining. The mining being done supports demand for the sand in the local area.

ENVIRONMENTAL MANAGEMENT PLAN

FOR

Ordinary Sand Mining

In Block-1, 22-00 Acres of Govt. Land
Adj. Sy. Nos. 133, 135, 131, 128, 126, 125, 146,
132, 131, 127, 126, 125, 123 & 122(P)
of Sangala Village
Ramdurg Taluk
Belagavi District, Karnataka

By

Sri. Abhishek B. Iliger
S/o. Sri. Basavaraj
H. No. 182/6, Plot No. 10/11
Vidhya Nagar, 1st Cross
Near Green Park Youth Club Road
Gokak, Belagavi, Karnataka- 591 307

C O N T E N T S

CHAPTER – 1
INTRODUCTION

1.1 BACKGROUND

For thousands of years, sand and gravel have been used in the construction of roads and buildings. Today, demand for sand and gravel continues to increase. Mining operators, in conjunction with cognizant resource agencies, must work to ensure that sand mining is conducted in a responsible manner.

The District Sand Monitoring Committee of Belagavi District, Karnataka has identified several River Sand Blocks, within the District, and in line with the Karnataka Government Gazette Notification No. 1007, Part-IV A, dated 12th Aug 2016, had offered them for open bidding, for extraction of Ordinary Sand, for the next Five (05) years. Of those identified River Sand Blocks, Block No. 1, having an extent of 22-00 Acres (8.90 Ha.) located in Malaprabha River Bed, near Sangala Village of Ramdurg Taluk, had been allocated to Sri. Abhishek B. Iliger.

In line with Gazette Notification No. S.O. 141(E), dated 15th Jan. 2016, issued by the Ministry of Environment, Forests & Climate Change, Govt. of India, it is mandatory to obtain Environmental Clearance for extraction of Ordinary Sand, either from the District level Environment Impact Assessment Authority (DEIAA) (For individual blocks < 5 Ha. extent and for cluster upto 25 Ha. with no individual block > 5 Ha.) or from State level Environment Impact Assessment Authority (SEIAA) (For individual blocks > 5 Ha. extent and for cluster above 25 Ha. or for cluster with < 25 Ha. but having at least one individual block > 5 Ha.). Accordingly, the sand block allocated to Sri. Abhishek B. Iliger, having an extent of 22-00 Acres (8.90 Ha.) and hence falls under the purview of SEIAA, for EC purpose. It is proposed to quarry about 45,400 Tons/ Annum of Saleable Ordinary Sand from the above Sand Block.

Sri. Abhishek B. Iliger, has submitted the Form-I along with Pre-Feasibility Report and Approved Quarry Plan (by Dept. of Mines & Geology, Govt. of Karnataka), Gazette Notification etc. to SEIAA, Karnataka for issuing Environmental Clearance for the proposed sand block. Further, he has prepared an Environmental Management Plan

(EMP) for the proposed quarrying activity of River Sand and intends to submit to SEIAA, for issuance of Environmental Clearance.

1.2 LOCATION OF THE PROJECT

The proposed Ordinary Sand Site is Block No. 1, along Malaprabha River Bed, near Sangala Village, in Ramdurg Taluk, in Belagavi District, having an extent of 22-00 Acres (8.90 Ha.). The site is well connected by a Road, capable of handling the required traffic. There are no environmental sensitive places like estuaries, defense installations, major air ports, national/ state highways, religious/ historic places, archaeological monuments, national parks, wildlife sanctuaries, etc., within close proximity (in 0.5 km radial distance), of the proposed site.

1.3 EMP FORMAT

The present report is based on compilation of the secondary data available for the proposed site & its surroundings, a description of the quarrying process, preparation of environment management plan and disaster management plan. The contents of the report have been organized in following Five chapters:

Chapter-1 – Introduction: This chapter provides background information of the project, brief description of the area, significance of the project and format of the report.

Chapter-2: Project Details: This chapter deals with the proposed location, infrastructure requirements etc.

Chapter-3: Environmental Conditions: In this chapter, the climatological conditions of the proposed area, present environmental conditions are presented.

Chapter-4: Environment Management Plan (EMP): This chapter provides environment management plan comprising the impacts due to proposed activity, along with the mitigative/ control measures. The Monitoring programme of various environmental attributes has also been included.

Chapter-5: Risk Assessment and Disaster Management Plan: This chapter deals with possible hazards associated with the proposed activity, including the control measures along with the occupational health and safety.

CHAPTER – 2

PROJECT DETAILS

2.0 INTRODUCTION

Sri. Abhishek B. Iliger, is proposing Ordinary Sand Extraction, in Block No. 1, located in Malaprabha River Bed, near Sangala Village, Ramdurg Taluk, to cater to the demands of market. The River Sand Block has an extent of 22-00 Acres (8.90 Ha.).

2.1 PROJECT SITE DETAILS

- The chosen sand block is adjacent to Sy. Nos. 133, 135, 131, 128, 126, 125, 146, 132, 131, 127, 126, 125, 123 & 122(P) of Sangala Village, in Ramdurg Taluk of Belagavi District.
- The Geographical positions of the proposed project site are given below.

C.P.	Latitude	Longitude
A	N 15° 53' 29.39"	E 75° 25' 11.89"
B	N 15° 53' 33.70"	E 75° 25' 34.36"
C	N 15° 53' 33.14"	E 75° 25' 35.95"
D	N 15° 53' 28.47"	E 75° 25' 52.87"
E	N 15° 53' 26.47"	E 75° 25' 52.88"
F	N 15° 53' 30.02"	E 75° 25' 37.16"
G	N 15° 53' 30.72"	E 75° 25' 35.64"
H	N 15° 53' 27.55"	E 75° 25' 13.11"

2.2 DETAILS ABOUT THE PROJECT

2.2.1 Cost of the Project:

The total cost of the proposed Ordinary Sand Quarrying activity is estimated as Rs. 14.00 Lakhs, of which approx. Rs. 1-1.4 Lakhs is towards the pollution control. The extraction of Ordinary Sand will be done by Opencast Semi-Mechanized quarrying method. The transportation of the extracted material will be outsourced.

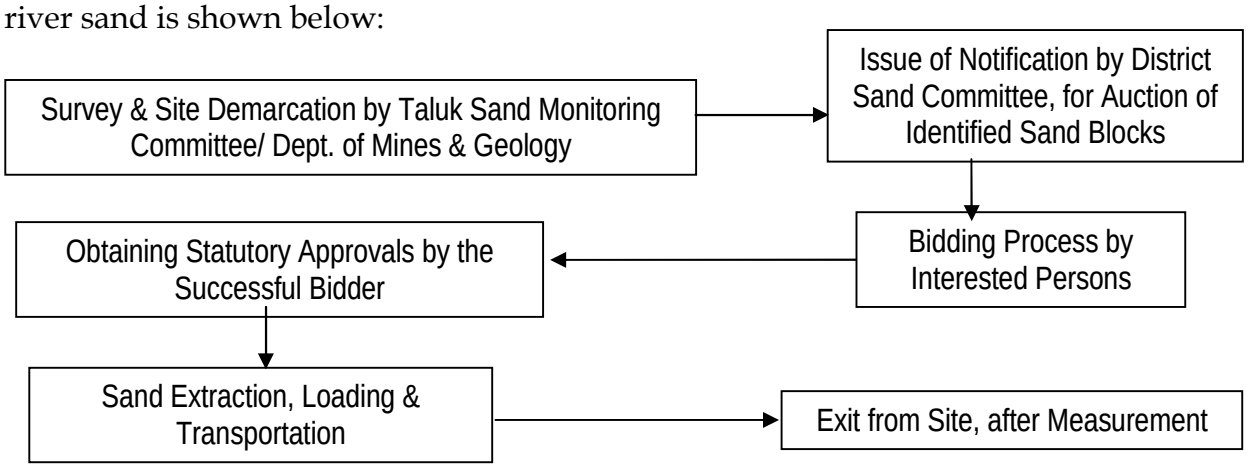
2.2.2 Raw Materials Requirement

The proposed activity itself is extraction of river sand, which will be the raw material for subsequent activities. Hence, there is no requirement of any other raw materials.

2.2.3 Description of the Process:

In the above mentioned Block, extraction of Ordinary sand will be carried-out in semi-mechanized way, using manual labour and also certain earth moving equipment like JCB / excavator etc. As the river bed is exposed to open sky, open cast quarrying will be sufficient.

To achieve the required level of Ordinary sand extraction, it is proposed to work for about 200 days in a year, leaving the period of Monsoon, Sundays and all other public holidays. Transportation of extracted material will be made through hired trucks to the dispatching points. The flow diagram of various activities involved in the extraction of river sand is shown below:



2.2.4 Water Requirement

Approximately 3,110 liters of Water will be consumed every day, of which about 110 litres/day will be for drinking & toilet needs of the workers. For dust suppression along the haulage roads, it is proposed to sprinkle the water and a provision of about 3,000 litres/day is made towards the same. The water requirement will be met from the nearby supply and will be stored in water container.

2.2.5 Power

The extraction of river sand will be carried-out using diesel driven earth moving equipment, during day time only. Hence no electric power is required.

2.2.6 Manpower

The total manpower requirement during the operational phase of the above quarry will be 11 personnel including personnel at all levels. Local people will be employed to the maximum extent possible for skilled and unskilled categories.

CHAPTER – 3
ENVIRONMENTAL CONDITIONS

3.1 General:

The proposed Ordinary Sand Mining in Sangala Block No. 1, along Malaprabha River is having a total extent of 22-00 Acres (8.90 Hectares).

3.2 Environmental Setup

Belagavi has a tropical savanna climate. It is known for its pleasant year-round climate. Summer season is considered as humid as the temperature goes upto 40 degrees Celsius. Belgaum is at its coldest in winter (November - February temperatures dropping to 7 degrees Celsius; the minimum temperature in Karnataka state is usually recorded in Belgaum) and it experiences almost continuous monsoon rains from June through September. Belgaum sometimes receives hail storms during April. The annual average rainfall is over 1200 mm.

Climatological Conditions

	Jan	Feb	Mar	Apr	May	June	July	August	Sept	Oct	Nov	Dec
Avg. Temp (^{o}C)	21.9	23.7	26.5	28.3	27.8	24.6	23.2	22.9	23.7	24.2	22.8	21.8
Min. Temp (^{o}C)	6.2	6.3	11.6	1.0	14.8	18.0	17.2	16.8	16.0	10.7	9.3	9.1
Max. Temp (^{o}C)	33.2	36.1	37.4	39.1	40.	37.2	34.3	34.0	35.6	34.1	33.8	33.5
Precipi-tation (in mm)	0	2	10	61	95	240	455	273	119	136	38	6
Average relative humidity (%)	46	40	40	52	63	82	87	88	83	69	57	52

3.3 Present Environmental Conditions

As part of the Environmental Management Preparation, baseline data with respect to Ambient Air Quality, Water Quality and Ambient Noise Level monitoring was carried out, and the test reports are annexed to this document.

CHAPTER 4

ENVIRONMENTAL MANAGEMENT PLAN

4.0 General:

The large-scale extraction of streambed materials, mining and dredging below the existing streambed, and the alteration of channel-bed form and shape leads to several impacts such as erosion of channel bed and banks, increase in channel slope, and change in channel morphology. These impacts may cause: (1) the undercutting and collapse of river banks, (2) the loss of adjacent land and/or structures, (3) upstream erosion as a result of an increase in channel slope and changes in flow velocity, and (4) downstream erosion due to increased carrying capacity of the stream, downstream changes in patterns of deposition, and changes in channel bed and habitat type. Excessive Sand mining also affects the adjoining groundwater system and the uses that local people make of the river.

Hence, the sand extraction from the river beds, needs to be controlled in a scientific manner, so that severe environmental disasters are controlled. Such a judicious utilization of natural resources, will always lead to sustainability. To ensure the sustainable development, the Environmental Management Plan (EMP) is required.

For attaining the desired objective of good environmental quality in the study area, several management strategies in different phases are proposed and evaluated.

- Planned improvements including additional control measures
- Measures to alleviate problems affecting villages near mining area
- Planning for the closure of mines

This section discusses the management plan for mitigation/abatement of impacts and enhancement of beneficial impacts due to mining. The Environmental Management Plan (EMP) has been designed within the framework of various Indian legislative and regulatory requirements on environmental and socio-economic aspects.

Environmental problems in ordinary sand extraction are almost similar to any opencast mining operations. The general degradation of river bed due to unscientific mining is a common feature. Environmental management plan giving the environmental protection measures at mine to meet the stipulated norms are detailed below:

4.1 SALIENT FEATURES OF ENVIRONMENTAL MANAGEMENT PLAN (EMP)

Following environmental measures are proposed for this mining project to mitigate the impact during the mining operation.

4.1.1 Land Environment

Harvesting of river bed minerals and other associated activities are the main sources of environmental degradations and most serious ones are detailed here under:

- Damage of river bank due to access ramps to river bed, causing damage to vegetation, soil erosion, micro disturbance to ground water, possible inducement of charged river course.
- Loss of riparian vegetation standing along the bank due to making roads connecting successive access to river bed.
- Contamination of sand aquifer water due to ponding, due to uneven rocky bed of river, sand bed thickness vary considerably and digging more sand from a pocket where thickness of sand is more may cause ponding. In this stagnant water bio-degradable materials especially flora waste gets accumulated causing contamination and inducing an unhealthy environment.
- Surface degradation due to stockpiling and road network.

4.1.1.1 Mitigation measures

- Minimum number of access roads to river bed shall be provided for which cutting of river banks will be avoided and ramps are to be maintained.
- Access points to the river bed will be decided based on least steepness of river bank and least human activity.
- No mining activity will be carried out in monsoon season and at the time of floods.

- Mining schedule is synchronized with the river flow direction and the gradient of the land.
- Haulage roads parallel to the river bank and roads connecting access to river bed will be made away from the bank.
- Care will be taken to ensure that ponds are not formed in the river bed.
- Access roads from public roads and up to river bank will be aligned in such a way that it would cause least environmental damage.
- Vegetation development is proposed along the banks of the river and along the road sides of the approach roads, to arrest soil erosion and strengthening of banks. While selecting the plant species, preference will be given for planting native species of the area.

4.1.2 Air Environment

Generally Ordinary Sand quarrying is carried-out manually, using hand tools and it is expected NOT-TO cause severe air pollution problems. However, certain activities like movement of loading and transportation vehicles etc. is expected to cause some air pollution (dust generation) in addition to noise pollution. This air pollution can be minimized to acceptable limits by following certain precautionary measures like proper maintenance of plant & vehicles, watering of haulage roads, water sprinkling in the sand extraction area etc.

4.1.2.1 Anticipated impacts and evaluation

Information on air quality was studied and that the mining activity in a significant manner. In mining operations, loading, transportation and unloading operations may cause deterioration in air quality due to handling dry materials. In the present case, only wet materials will be handled, thus eliminating problems of fugitive dust. Also, the collection and lifting of minerals will be done manually or with excavator without any blasting. Therefore, there will be insignificant generation of dust emissions as compared to mining process or other hard minerals in which the processes like drilling, blasting, mechanized loading etc., are involved.

4.1.2.2 Mitigation measures

- Water sprinkling will be done on the roads regularly.
- Care will be taken to prevent spillage by covering the carrying vehicles with tarpaulin and sprinkling of water, if it in dry form.
- Fortnightly scraping of road in order to keep the roads almost leveled will be done to ensure smooth flow of vehicles and to prevent spillage of mined material.
- Overloading will be kept under check by giving prior awareness.
- Proper training of vehicles will be ensured to keep the gas emissions from the vehicles within the prescribed norms.
- Plantation of trees along the roads will be done to attenuate the impact of dust in the nearby villages/ surrounding area.

4.1.3 Water Environment

Generally, Ordianry sand quarrying activities are not expected to cause any major water pollution, unlike other mining activities. However, due to the consumption of potable water by the working personnel for drinking and sanitation needs, needs to be addressed properly. Mining of sand from within or near a streambed has a direct impact on the stream's physical habitat characteristics. These characteristics include geometry, bed evaluation, substrate composition and stability, in stream roughness elements, depth, velocity, turbidity, sediment transport, stream discharge and temperature. Altering these habitat characteristics can have deleterious impacts on both in stream biota and associated riparian habitat.

The detrimental effects to biota resulting from bed material mining are caused by 3 main processes:

- Alteration of flow patterns resulting from the modification of the river bed
- An excess of suspended sediment
- Damage to riparian vegetation and in stream habitat

Further, very nominal quantity of water will be used for domestic purpose and suppression of dust, which will be taken from nearby area.

4.1.3.1 Mitigation measures

The deposit of sediments occur in the bed of the river. During the lease period, the mining of minor minerals will be carried out 3 m below ground level or above the ground water table whichever is less.

Very nominal quantity of water will be used for domestic purpose and suspension of dust emissions and the same will be replenished due to percolation/ seepage of water from river/stream bed.

4.1.4 Noise Environment

In any river sand mine, major noise is due to the movement of loading equipment and vehicles. Noise generation may be for an instant, intermittent or continuous periods, with low to high decibels. Periodic inspection and checks of the risk prone areas and equipment have to be conducted.

4.1.4.1 Anticipated impacts and evaluation

As there will be no heavy earth moving machinery, thus, there will not be any major impact on noise level due to the mining and other associated activities. Blasting technique will not be practiced, hence, there will not be any possibility of land vibration. It was found that the mining activity will not have any significant impact on the noise environment of the region. The only impact will be due to transportation of materials by trucks and excavation of material with excavator.

4.1.4.2 Mitigation measures

The impact on ambient noise levels will only be due to transportation and excavation of material and following mitigation measures will be taken for the same.

- Regular maintenance of machinery will keep the generated noise level below the minimum prescribed limits.
- Minimum use of Horns at the village area.
- Timely maintenance of vehicles and their silencers to minimize vibration and sound.
- Phasing out of old and worn out trucks.

- Plantation of trees along the bank will be done to attenuate the noise to be generated from machinery.
- Care will be taken to produce minimum sound during loading/excavation.
- Awareness will be imparted prior to mining operations to all the operators & other persons concerned, so that they must be aware of detrimental effects of noise pollution.

4.1.5 Biological Environment

The species proposed for plantation, are as under:

Species proposed for the plantation along the approach Road

- *Hopea parviflora* - Kiralbogi
- *Ficus benghalensis* - Aalada mara
- *Madhuca indica* - Hippe
- *Hardwickia binata* - Anjana
- *Acacia ferruginea* - Bannimara
- *Thespesia populnea* - Bugari
- *Ficus benghalensis* - Halada mara
- *Azadirachta indica* - Bevu

Species proposed for the plantation on the River bank

- *Annona squomosa* - Seethaphala
- *Pongamia pinnata* - Honge
- *Malpighia emarginata* - Indian Cherry
- *Pandanus odorifer* - Kewda tree (Kedage)

(Kedage- To prevent Erosion of River Banks)

Following mitigation measures shall be taken

- If birds are noticed crossing the core zone, they will not be disturbed at all;
- Laborers will not be allowed to dispose of food, plastic etc. indiscriminately, which can attract animals/birds near the core site;
- Only low polluting vehicles having pollution under control certificate will be allowed for carrying mining materials.
- Noise level will be maintained within permissible limit.

4.1.6 Other Environment Safeguards

- No labour camps will be allowed on river bed
- Prior to mining, short awareness program will be conducted for laborers to make them aware for way of working.
- If some causality or injury to animal occurs, it will be informed to forest department and proper treatment will be given.
- No lighting will be allowed in the area.
- No tree cutting, chopping, lumbering, uprooting of shrubs and herbs will be allowed.
- No track or new road for movement of laborer's or vehicles be laid in adjoining area, this will prevent fragmentation, encroachment and human-animal encounter.
- Corridor for movement of wild mammals (If exists) will be avoided for mining/travelling purposes.
- Care will be taken that noise produced during vehicles movement for carrying sand are within the permissible noise level.
- No stockpiling of sand will be done in adjoining area.
- If wild animals are noticed crossing the river bed, they will not be disturbed or chased away, instead the labors will move away from their path.

4.1.7 Solid Waste Management

The solid waste that is likely to be generated from the proposed activity will be mainly the rejected material like boulders, stones etc. This will be collected and will be used for strengthening the river bank.

4.2 Storage and Preservation of Topsoil

In Ordinary sand mining Blocks, there will not be any kind of top soil and hence, there is no need of any top soil management measures.

4.3 Human Settlements

There is no human settlement in the core zone.

4.4 Socio-Economic benefits

Spurt in industrialization and mining activities have invariably brought a drastic change in the environment including the society connected with region. Mostly remote areas tucked away from urbanization and influence of modern civilization fall within the limits of mine development.

A natural corollary to this the socio economic aspects of the local inhabitants who have dwelling in this region for generations, get suddenly and probably a radical change, consequent to their abrupt exposure to the mining.

The local people will get employment opportunities, better medical and educational facilities etc., mainly due to the mining operation from this project. In addition to this the literacy rate and better living standards shall increase due to the enhanced earning capacity of villagers.

4.5 Implementation of EMP & Monitoring Programme

The environment management plan is detailed on the basis of expected impacts. Control and mitigation measures for the adverse impacts envisaged. The mitigation measures suggested above will be implemented so as to reduce the impact on environment due to the operations of the proposed activity. In order to facilitate easy implementation, mitigation measures are phased as per the priority of implementation. The priority of the implementation schedule is given below:

Implementation Schedule

Sl. No	Recommendations	Time Requirement	Implementation schedule	
			Immediate	Progressive
1.	Air pollution control measures	Always	√	-
2.	Water pollution control measures	Before commissioning of the mining	√	-
3.	Noise control measures	Always	√	-
4.	Ecological preservation and up gradation	Stage wise implementation	-	√

Monitoring Strategy

As the major environmental attributes have been confined to the activity area alone, implementations of the proposed control measures and monitoring thereof will be undertaken on the regional basis. The **Ordinary Sand Extraction** will ensure the implementation of the measures within the mine area and carryout efficient monitoring. Also, the monitoring of various environmental parameters is necessary, which is a part and parcel of the environmental protection measures. The proponent is committed to implement the monitoring programme, as per the recommendations of the State Environmental Impact Assessment Authority (SEIAA)/ Karnataka State Pollution Control Board (KSPCB).

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

4.6 Infrastructure for Environmental Protection

The proposed activity will be under Administrative Control of the Proponent, who will be the overall in-charge for the safety and environmental issues of the activity. It is proposed to outsource the following activities to specialized agencies:

- Collect the information from regular monitoring and create data-base.
- Prepare half-yearly statement
- Monitoring of various environmental parameters for proposed plant (by external MOEF/ NABL approved agency).

CHAPTER – 5
DISASTER MANAGEMENT PLAN

5.0 INTRODUCTION

Any of the industrial or mining activities have their associated hazards. If these are handled properly, there will not be any unwanted damage to life and property. However, the proposed activity doesn't involve any hazardous operations and the magnitude of the operations is also very small. The proposed project is an opencast, manual mining project. The hazards associated with the proposed activity along with the mitigation measures, are summarized below:

Hazards Identified	Applicability/ Mitigation Measures
Roof fall inside the mine	❖ Not applicable for open cast mining
Surface Subsidence & Inundation	❖ Sufficient safe distance will be maintained along the banks & on the upstream and downstream of the proposed river sand block. ❖ Disturbance to ground water quality or depletion are not envisaged, as depth of sand removal will be shallow (<3.0 m)
Surface Fire	❖ In case of River sand Mining, incidents rarely occur
Explosives/ Blasting	❖ No blasting is involved
Radioactive hazard	❖ Not Anticipated
Failure of Pit Slopes	❖ Depth of mining is very shallow, hence negligible.
Failure of waste dumps	❖ Rejects will be used for strengthening of the river banks.
Failure of mine benches	❖ Not anticipated, due to the fact that River sand mining will be done only to shallow depths.
Dust	❖ Only manual extraction of sand. ❖ Water Sprinkling on Haulage Roads
Noise	❖ Regular maintenance of vehicles ❖ Unnecessary idling of vehicles/ not allowed
Transport vehicles	❖ Loading according to the vehicle capacity ❖ All vehicles shall have rear view mirrors ❖ Regular checking of brakes to avoid failures
General Safety Measures	❖ No entry for any unauthorized persons ❖ Quarrying as per Approved Plans only ❖ All statutory requirements will be complied with

Disaster Management Plan

The complete mining operation is carried out under the management control and direction of a qualified Supervisor/ Contractor. The DGMS have been issuing a number of standing orders, model standing orders and circulars to be followed by the mine management in case of disaster, if any. However, following natural/industrial hazards may occur during normal operation.

- Slope failures of pit & dump; and
- Accident due to transport & other equipment

To take care of these hazard, the control measures proposed are given above. The management is able to deal with the situation efficiently to reduce confusion keeping in view of the likely sources of danger in the mine.

Health and Safety Monitoring Plan: All the potential occupational hazardous work places would be monitored regularly. The health of employees working in these areas would be monitored once in two years for early detection of any ailment due to exposure to plant operation.

--- X --- X --- X ---

ಕರ್ನಾಟಕ ಸರ್ಕಾರ

Government of Karnataka

ಉಪನಿರ್ದೇಶಕರ ಕಛೇರಿ, ಗಣಿ ಮತ್ತು ಭೂವಿಜ್ಞಾನ ಇಲಾಖೆ, ಸಂಗಮೇಶ್ವರ ನಗರ, ಬೆಳಗಾವಿ.

Office of the Deputy Director, Dept. of Mines and Geology, APMC Road, Sangameshwar Nagar, Belagavi

Telephone: 0831-2428042, E-Mail: ddbelgaum123@gmail.com

No. DMG/BGM/DD/Sand Block/QPA/2017-18 2869. Date: 06.12.2017

- 7 DEC 2017

To,
Sri. Abhishek B Iliger
S/o. Sri. Basavaraj
H. No. 182/6, Plot No. 10/11
Vidhya Nagar, 1st Cross
Near Green Park Youth Club Road
Gokak, Belagavi, Karnataka- 591 307

Sub:- Approval of Modified Quarrying Plan (including Progressive Quarry Closure Plan) in respect Grant of (Malaprabha River) adjacent to Sy. No. 133, 135, 131, 128, 126, 125, 146, 132, 131, 127, 126, 125, 123 & 122(P), Block No. 1, situated at Sangala Village, Ramdurg Taluk, Belagavi District, Karnataka in Malaprabha River bed over an extent of 22-00 Acres (8.90 Ha), -Reg.

Ref: Your Request letter to approve the modified Quarrying plan dated 01.12.2017

In exercise of the powers conferred by sub-rule (3A) of Rule 18 of Karnataka Minor Mineral Concession Rules, 1994 the modified Quarrying Plan (including Progressive Quarry Closure Plan) submitted is hereby approved.

Yours faithfully,

Deputy Director.
Department of Mines & Geology,
Belagavi.

Deputy Director
Department of Mines & Geology
BELAGAVI

Copy submitted to : -
The Member Secretary, Department of Environment, Ecology and Forest
Room No. 710, 7th floor , 4th Door, MS. Building, Bangalore 560001
for information

MODIFIED QUARRY/MINING PLAN

(INCLUDING PROGRESSIVE MINE CLOSING PLAN)

Submitted under

(Prepared under Rule 8 F & 8 H (1) of "Karnataka Minor Mineral Concession 1994 (Amendment) Rules 2013 & 2016") (Govt. Revenue land)

For

"RIVER SAND BLOCK-1"

OF MALAPRABHA RIVER BED IN ADJACENT TO SURVEY No. 133, 135, 131, 128, 126, 125, 146, 132, 131, 127, 126, 125, 123 & 122(P) OVER AN EXTENT OF 22-00 ACRES (8.90 Ha) BLOCK-1 SITUATED IN SANGALA VILLAGE, RAMDURG TALUK, BELAGAVI DISTRICT, KARNATAKA.

Applicant:

Abhishek B. Iliger, S/o Basavaraj,
H. No. 182/6, Plot No. 10/11,
Vidhya Nagar, 1st Cross,
Near Green Park Youth Club Road,
Gokak; Belagavi; Karnataka -591307

Prepared By

SRINIDHI B. N.
RQP/BNG/314/2013/A.
#53, 2ND CROSS, 2ND STAGE,
GANGOTHRI LAYOUT,
NEAR MARUTHI TEMPLE, MYSORE - 570009.

DECLARATION BY THE OWNER

I, hereby certify that the Quarrying Plan for "River Sand Block" over an extent of 22-00 Acres (8.90 Ha) Block-1 in Adjacent to Survey No. 133, 135, 131, 128, 126, 125, 146, 132, 131, 127, 126, 125, 123 & 122(P) of Sangala Village, Ramdurg Taluk, Belagavi District. Quarry Plan has been prepared by Sri Srinidhi B.N. (RQP/BNG/314/2013/A) with full knowledge of the area. I have understood the contents and agreed to implement the same in accordance with the provisions under KMMC Rules 1994, Amendment 2013 and guidelines of Director of Mines & Geology, Government of Karnataka, in full knowledge and I understood its contents and agree to implement the same in accordance with law.

I hereby undertake that all the implementation so made in the Quarrying Plan by the RQP, be deemed to have been made with my knowledge and shall be acceptable to me and binding on me in all respects.

Date:

Signature of Applicant

RQP CERTIFICATE

The provisions of Karnataka Minor Mineral Concession (8C of Amendment) Rules -2013 have been observed in the preparation of Quarrying Plan for River Sand Block, over an extent of 22-00 Acres (8.90 Ha) Block-1, in Adjacent to Survey No. 133, 135, 131, 128, 126, 125, 146, 132, 131, 127, 126, 125, 123 & 122(P) of Sangala Village, Ramdurg Taluk, Belagavi District. Wherever specific permissions are required the applicant will approach the concerned authorities of the Department of Mines & Geology.

The Provisions of Mines Act, Rules & Regulations made there under have been observed in preparation of this Quarrying Plan. Wherever specific permission is required, the lessee will approach DGMS for approval. It is also certified that information furnished in the "Quarrying Plan" is true and correct to the best of my knowledge.

B.N.

DATE:

Shri Shrinidhi B.N.
RQP/BNG/314/2013/A
Valid Upto:11/07/2023

CONTENTS

ANNEXURES

LIST OF PLANS ENCLOSED

PLATE No.	PARTICULAR	SCALE
PLATE-1	KEY PLAN	1:50,000
PLATE-1A	LOCATION MAP	-
PLATE-2	LEASE SKETCH	1:660
PLATE-3	SURFACE GEOLOGICAL PLAN	1:2000
PLATE-4	GEOLOGICAL CROSS SECTIONS	1:500
PLATE-5	PRODUCTION PLAN FOR PLAN PERIOD	1:2000
PLATE-6	SECTION SHOWING THE SCHEDULES OF PRODUCTION DURING THE PLAN PERIOD	1:500
PLATE-7	ENVIRONMENTAL PLAN	1:5000
PLATE-8	PROGRESSIVE QUARRY CLOSURE PLAN	1:2000

QUARRY/MINING PLAN FOR RIVER (NATURAL) SAND BLOCK (BLOCK No. 1), OVER AN EXTENT OF 22-00 ACRES (8.90 Hectare) OF MALAPRABHA RIVER BED IN ADJACENT TO SURVEY No. 133, 135, 131, 128, 126, 125, 146, 132, 131, 127, 126, 125, 123 & 122(P) OF SANGALA VILLAGE, RAMDURG TALUK, BELAGAVI DISTRICT, KARNATAKA.

(Prepared under Rule 8F & 8H (1) of Karnataka Miner Mineral Concession (Amendment) Rules 2013, 2016) (Govt. Revenue land)

ABSTRACT

Belagavi is a district in the state of Karnataka, India. The city of Belagavi is the district headquarters in North Karnataka. According to the 2011 Census of India, it has a population of 4,778,439 of which 24.03% live in urban areas, making it the second most populous district in Karnataka (out of 30), after Bangalore. The district has an area of 13,415 square kilometers, and is bounded on the west and north by Maharashtra state, on the northeast by Bijapur District, on the east by Bagalkote District, on the southeast by Gadag District, on the south by Dharawad and Uttara Kannada districts, and on the South-West by the state of Goa.

Malaprabha is a right bank tributary of Krishna River. The Malaprabha catchment lies between North latitudes 15° 00' and 16° 12' and east longitudes 74° 14' and 76° 05'. The Malaprabha River originates from the Chorla Ghats, a section of the Western Ghats, at an elevation of about 792m about 35m South-West of Belgaum District of Karnataka. The river flows East and North-East and joins Krishna at Kapila Sangam in Bijapur District at an elevation of about 488 m. The Bennihala and the Hirehalla are the principal tributaries of the river Malaprabha. The total catchment area of the Malaprabha including its tributaries is 11,549 sq. km, which lies wholly in the State of Karnataka.

QUARRYING PLAN APPROVED
Deputy Director
Dept. of Mines & Geology
BELAGAVI

It also flows through Dharwar District. Hubli city gets the drinking water from this reservoir. The Navilateertha Dam is constructed near Munavalli in Belgaum District with a storage capacity of 1.07 km^3. It irrigates more than 2,000 square kilometers of land.

Block of the Malaprabha river is located in the village limits of Sangala. The Sand Block is proposed for quarrying which is topographically located at N 15^0 53' 26.47" to N 15^0 53' 33.70" and E 75^0 25'11.89" to E 75^0 25' 52.88" of Sangala village in Ramdurg Taluk of Belagavi district. Malaprabha river Sand Block has Ordinary (Construction) sand deposited over a period of years which is well exposed on it's River bed.

INTRODUCTION

The demand for ordinary natural river sand is enormously increased in building construction and infrastructural developments. The natural sand is started vanishing from the river beds besides causing natural and environmental hazards in surrounding areas due to illegal and unscientific mining without proper mining plan. In view of this the awareness among local residents increased to the large extent and hence the Supreme court entered into the scene to rectify the deficiency in sand mining and ecology management and alarm to respective governments to take corrective measures. Therefore, the government of India announced sand policy by fixing responsibility on related departments mainly Mines & Geology and Ministry of Environment and Forest. Accordingly the Govt. of Karnataka formulated a natural sand policy to meet the sand demand in the state by undertaking systematic & scientific mining and protection of environment and by maintaining eco-balance in the surrounding areas by following the Govt. of India guidelines.

Department of Mines & Geology notified that the sand Blocks to be auctioned. As per the rule 8C of Karnataka Miner Mineral Concession (Amendment) Rules 2013 & 2016, it is required to submit the mining plan to get the mining lease. Therefore, the successful bidder has appointed RQP

(recognized qualified person under Rule 22C of MMR 1960) to prepare the mining/quarrying plan as per Rule 8D of Karnataka Miner Mineral Concession (Amendment) Rules 2013 & 2016.

For fulfilling the statutory requirement of submission of "approved mining plan" to get the mining lease, lessee has submitted this mining plan for River Sand Block (Block-1) over an extent of 22-00 Acres (8.90 Hectare) adjacent to Survey No. 133, 135, 131, 128, 126, 125, 146, 132, 131, 127, 126, 125, 123 & 122(P) of Sangala Village, Ramdurg Taluk, Belagavi District, Karnataka State. The plan has been prepared by following the guidelines provided by the Director of Mines & Geology, Govt. of Karnataka under Rule 18(3) of Karnataka Miner Mineral Concession Rules 1994 and under Rule 8C, 8F & 8 H(1) of Karnataka Miner Mineral Concession (Amendment) Rules 2013 for very small mines without using explosives in the mine (published in Department of Commerce and Industries vide Notification No. CI 357 MMN 2012, Bengaluru, dated 16-12-2013). Includes Amendment made on 12.8.2016. This mining plan has been prepared with full consultation of the applicant for a period of 5 years as per Rule 8 F v Karnataka Minor Mineral Concession (Amendment) Rules 2013 & 2016.

Presently as per the orders of the Hon'ble Supreme court and by Notification issued by the Government of Karnataka, it is mandatory for all quarry leases to obtain Environmental clearance for all fresh leases and also for the existing leases. Hence the quarry plan is prepared.

The sand monitoring committee/sand bidder or lessee after grant of permission from the concerned authorities intends to commence production semi-mechanically by digging 1.0 meter depth (max.) to supply the sand to infrastructure builders etc. by following the approved mining plan and conditioned in Environmental Clearance Certificate.

The applied area is having exposure of river sand through-out the proposed block. The applicant has dug few trial pits, basing on this information the reserves are estimated as given in this report.

1.0 GENERAL

a) Name of the Applicant : Abhishek B. Iliger,

Address : S/o Basavaraj,
H. No. 182/6, Plot No. 10/11,
Vidhya Nagar, 1st Cross,
Near Green Park Youth Club Road,
Gokak; Belagavi; Karnataka -591307.
Annexure-1.

b) Number of other leases held by the Lessee: Nil.

c) Status of Applicant: Individual.

d) Minerals which are occurring in the area and which the applicant intends to mine: Mineral occurring in the area is ordinary sand for Construction purpose. The lessee would like to quarry only Sand for construction purpose.

e) Period for which this mining lease is granted/renewal proposed to be applied: Only 5 years from the date of Notification.

f) Name of RQP preparing mining plan:

- Name : Sri Shrinidhi B.N.
- Address : #53, 2nd Cross, 2nd Stage,
  Gangothri Layout,
  Near Maruthi Temple
  Mysore-570009
  RQP/BNG/314/2013/A.
  Valid Upto: 11-07-2023
  Mob: 9986186840, **Annexure-3.**

g) **Name and address of the Prospecting Agency:** Ordinary sand formation is by disintegration of mother rocks due to the water currents in the rivers and is openly exposed in the rivers, hence no prospecting required for ordinary sand. Open pits up to the bottom of sand bed to confirm the depth of the river bed for the purpose estimating the Reserve of sand.

h) **Reference No. and date of consent letter from the state Govt:** Government of Karnataka has issued a Notification by framing the rules to be adopted for quarrying ordinary sand. Vide No. CI 357 MMN 2012, dated 16-12-2013.

2.0 LOCATION, TOPOGRAPHY & ACCESSIBILITY

a) Details of the Area:

The lease area is demarcated on the Topo-sheet No. 48/M/5 of the Survey of India and enclosed vide Plate No. 1 as Key plan.

District	Taluk	Village	Area in Acres	Ownership
Belagavi	Ramdurg	Sangala	22-00Acres (8.9Ha)	Abhishek B. Iliger, S/o Basavaraj, H. No. 182/6, Plot No. 10/11, Vidhya Nagar, 1st Cross, Near Green Park Youth Club Road, Gokak; Belagavi; Karnataka-591307.

Boundaries: North: Malaprabha River and Adjacent Sy. No. 133,135, 131(P),128,126,125,146(P); South: Malaprabha River and Adjacent Sy. No. 132,131(P),127,126,125,123(P)&122(P); East: Malaprabha River; West: Malaprabha River;

b) Existence of public road / railway line, if any nearby and approximate distance:

The Applied area is situated at 1.0 km West of Sangala village. The quarry area is 15.0 km from Ramdurg, the Taluk head quarter. The major road passing nearby the Applied area is NH218 at a distance of 7.5km. The nearest railway station is at Holealur which is at a distance of 24.0 km from the quarry area. No reserve forest & No wild life sanctuary within 5.0 kms radius from the lease area.

c) Toposheet No. with Latitude and longitude: Toposheet No: 48/M/5

SL.NO.	CO-ORDINATES	
	LATITUDE	LONGITUDE
A	15° 53' 29.39"	75° 25' 11.89"
B	15° 53' 33.70"	75° 25' 34.36"
C	15° 53' 33.14"	75° 25' 35.95"
D	15° 53' 28.47"	75° 25' 52.87"
E	15° 53' 26.47"	75° 25' 52.88"
F	15° 53' 30.02"	75° 25' 37.16"
G	15° 53' 30.72"	75° 25' 35.64"
H	15° 53' 27.55"	75° 25' 13.11"

d) Land use pattern (Forest, Agricultural, Grazing, Barren etc):

The area granted for quarrying of ordinary sand is purely in the River Malaprabha. Water flows in the River during monsoon and dry during rest of the Period.

The adjacent lands of sand block are Agriculture lands. Key Plan of the area is enclosed, showing the existing roads, village, nallah, agricultural land etc.

e) Climate

The climate of Belgaum district can be broadly divided in to four seasons (Kamath, 1987) viz. the summer, the monsoon, Post monsoon and the cold.

I). Summer season: It includes the months from March to May. Temperature increases steadily with its maximum in the month of temperature April. The western part remains pleasant with compared to the eastern part of the district, which is too hot and temperature rises up to 42°C.

II). Monsoon season: The monsoon starts on the onset of the south-west monsoon which arrives in May end to June, that lasts till October. Humidity during this season is highest of all the seasons. The eastern part of the district receives North Eastern Monsoon rain during September-October.

III). Post Monsoon Season: It includes the months of October and November. Humidity decreases in this period to the minimum, heavy fogs gather soon after sunset and towards the morning.

IV). Cold season: It includes the months of December to February. During this season temperature is at its minimum.

PART - A

3.0 GEOLOGY AND EXPLORATION:

a) Topography:

The proposed River Sand Mining Block is covered in Survey of India Topo-Sheet No. 48/M/5. The applied quarry lease area is Block No-1 within the village limits of Sangala along river Malaprabha. The Stream of River Malaprabha is having a mild slope from South-West to North-East. No major road passes through the proposed area. No human settlements within or in the close vicinity of the area. The nearest village Sangala is at a distance of 1.0 km towards East from the proposed site.

The drainage pattern of the buffer zone is dendritic to sub-dendritic in nature. No perennial nallah or streams in the buffer zone. Only during monsoon for about 5 months the water flows in the river. Generally the quarrying will be continued during the non-monsoon period.

The highest elevation is in the South-West portion and the lowest elevation is in the North-East portion of the block having an elevation of 552m to 550m, respectively. The difference in altitude is about 2m.

b) General Geology:

Geology Karnataka consists of four main types of geological formations; The Archean complex made up of Dharwad schists and granitic gneisses, the Proterozoic non-fossiliferous sedimentary formations of the Kaladgi and Bhima series, the Deccan trappean and intertrappean deposits and the tertiary and recent laterites and alluvial deposits. Significantly, about 60% of the state is composed of the Archean complex which consists of Gneisses, Granites and Charnockite rocks. Laterite cappings that are found in many districts over the Deccan Traps were formed after the cessation of volcanic activity in the early tertiary period. There are mainly six types of soils, viz. Red, lateritic, black, alluvio-colluvial, forest and coastal soils. The geological history of Karnataka is largely confined to the two oldest eras - the Archaean and the Proterozoic. The substantial part of North Karnataka is covered by Deccan Trap. The bulk of the rocks of Karnataka

are Archaean in age. Ancient supracrustals are the oldest rocks dated so far in Karnataka. They are a group of grey gneisses giving an age of 3,400 million years. They are also described as belonging to Sargur schists. Auriferous Schist Belts (Kolar type) are next in order of age and are a series of basic igneous rocks. They are well developed in the eastern part of the State. Older Gneissic complex consist of an extensive group of grey gneisses (3,400 to 3,000 million years) and act as the basement for an extensive belt of schists. Younger Gneiss complex consist of a group of gneissic rocks mostly of granodioritic and granitic composition. They are found in the eastern parts of the State and range in age from 2,700 to 2,000 million years. Younger Schist Belts (Dharwar type) are the prominent schistose rocks. They are Archaean in age and belong to the age group of 2,900 to 2,600 million years.

Younger (Closepet) Granites extends in north-south directions as a narrow belt 50 km. Wide. This is a complex of coarse to medium pink and grey granites. Isolated masses of granites like those of Chitradurga, Arasikere, and Banavara belong to the same age group as the younger Granites (2,600 million years). Chornockites are a group of Pyroxene bearing granulites and they are not regarded as separate intrusions and are located in the Southern parts of the State. The close of the Archaean is marked by a period of dyke formation. The majority of the dykes are younger than 2,400 million years. They are of doleritic composition. Besides dolorites, a number of alkaline dyke intrusives have been described in the southern part of Karnataka.

c) Regional Geology:

Geologically the Malaprabha basin comprises of the following geological formations

Recent Soils

Tertiary basalts

Sedimentary formations of pre- Cambrian age

Archean Gneisses

The major parts of the basin are covered by tertiary basalts and Sedimentary formations of Pre-Cambrian age. Northern portion of the district is a plateau region formed by basaltic lava flows, which represents "Deccan peneplain". Various basalt flows formed one over another similar to sedimentary formations.

The sedimentary formations of Malaprabha river basin are of Pre-Cambrian age. These rocks are confined in the Southeastern part of the Basin. The Sedimentary litho-units present are belonging to the Kaladgi series lying over granitic gneisses corresponding to the Archaean unconformably. Quartzarenites, argillites and conglomerates constitute the sedimentary rocks which trend a general E-W direction with a low northerly dip. The argillites are observed to rest conformably over quartzarenites. Based on the above described field observations the following order of superposition has been arrived at

GROUPS	ROCK FORMATIONS
RECENTS	RED LOAMY SOILS, MEDIUM BLACK SOILS
TERTIARIES	DECCAN BASALTS
KALADGIES	ARGILLITES GRITS AND BRECCIA QUARTZARENTIES CONGLOMERATES
----- EPARCHAEAN UNCONFORMITY-----	
DHARWARS AND ARCHEANS	BASIC DYKES GRANITIC GNEISSES

The soils vary in depth and texture, depending on the parent rock type, physiographic settings and climatic conditions. By and large, black soils predominates the Deccan Trap terrain and the red soils are found in the Southwestern and Southeastern part of the district in Gneissic terrain.

d) Local Geology:

The top of river bed consists of Sand of thickness 3.5-4.0 m. The sand composition and texture may vary with depth, depending on the parent rock

type, physiographic settings and climatic conditions of which the river come across. However the most abundant mineral present in the sand is Quartz followed by Feldspar. It is believed that the existing sand is derived from the weathering and disintegration of upstream rock units such as Deccan Basalts, sedimentary rocks belongs to Kaladgies and Archean Gneissic rocks.

Geological cross sections are drawn at the central part of the area proposed for each production year of the plan period. Since the width of the stream is much lesser than the length along the stream, suitable scale is selected for both Horizontal and vertical axis as 1:500 and 1:100 respectively. All the exposures are marked on each section and enclosed as Plate Number 4 & 6.

e) Future programme of exploration:

No exploration is proposed as the ordinary sand is replenished by regular flow of the stream every year. The Excavated sand pits will be replenished by river brought sediments during monsoon. This is due to high velocity of stream which results in upstream erosion and the same will be deposited in catchment area. Sand Extraction will not be carried-out during the monsoon period.

4.0 RESERVES

a) Method of Estimation of Reserves:

For estimation of available sand reserves, trial pits are made at regular intervals as per UNFC Norms and the sand deposit is found to be upto a depth of 3.5 to 4.0m in the identified sand block area. Volume of the ore reserve in the block is estimated by multiplying the plan area by the depth proposed for quarrying of the sand. Specific gravity of the ordinary sand is considered as 1.70 for the purpose of computing the Reserve.

As per the Joint Inspection Report, the Mineable Reserves are estimated only to a depth of 1.5 meters, which is proposed for quarrying.

About 90% of the total reserves are considered for the commercial purpose. Total estimated geological and mineable reserves are as under:

GEOLOGICAL RESERVES					
Area in Sq. m.	Average Depth Of The Block In M.	Total Volume In Cu. M.	Bulk Density **Ton/ Cu.M**	**Total Quantity In Tonnes**	**Saleable Sand (90 %)**
89024	3.5	3,11,584	1.70	5,29,693	4,76,723
MINEABLE RESERVES					
Area In Sq. M.	Average Depth Of The Block In M.	Total Volume In Cu. M.	Bulk Density **Ton /Cu.M**	**Total Quantity In Tonnes**	**Saleable Sand (90 %)**
89024	1.5	1,33,536	1.70	2,27,011	2,04,310

However, as per the Sustainable Sand Mining Management Guidelines 2016, issued by the Ministry of Environment, Forests & Climate Change, Govt. of India, and considering the Annual Rate of Replenishment, it is proposed to mine upto a depth of 1.0m, every year. The annual rate of production (saleable) is arrived by distributing the total mineable area into three parts during the first three years of operation (i.e. one sub block per year) and the first two sub-blocks will be reused for sand extraction in the 4th and 5th year of the lease period. The saleable Tonnage ordinary sand and the rejection during the plan period are as given below.

A Worksheet Showing The Production Schedule During The 5 Years Plan Period							
Year	Plan Area In Sq.m.	Depth In mtr	Volume In Cu.m.	Specific Gravity In Ton/CuM	Total In tonnes	Recovery of sand@ 90% in tonnes	Waste @ 10% in tonnes
I	29,674	1.00	29,674	1.70	50,445	45,400	5045
II	29,674	1.00	29,674	1.70	50,445	45,400	5045
III	29,674	1.00	29,674	1.70	50,445	45,400	5045
IV	29,674	1.00	29,674	1.70	50,445	45,400	5045
V	29,674	1.00	29,674	1.70	50,445	45,400	5045
Total					**2,52,225**	**2,27,000**	**25,225**

Considering the above annual saleable ordinary sand of 2,27,200 tons over the plan period of 5 years, the average saleable annual production works-out to 45,400 tons. Assuming total effective working days for sand mining in

a year will be only 200 days; the daily average saleable production will be about 227 tons.

In case of ordinary sand, question of life of the mine does not arise as the ordinary sand is replenished by regular flow of the stream every year. Keeping the environmental impact in mind, the total reserves shall not be exhausted completely at any point of time length.

Composite plan showing pit layout at the end of every year for 5 years and sectional views showing production schemes for 5 years are enclosed vide **Plate No. 5 & 6.**

Replenishment and Drainage Study:

Dandy-Bolton formula is often used to check the Sediment Yield

For run off more than 2 inches formula to find Sediment Yield is

$S = 1965*(e-0.055*Q)*[1.43-0.26 \text{ Log}(A)]$

Where: S = Sediment yield (tons/mi^2/yr)

Q = Mean Annual runoff (inch)

A = Net drainage area (mi^2)

River – Malaprabha River

Catchment Area = 2.80 km^2 i.e. 1.08 mi^2

Annual Average Rainfall = 614mm i.e. 24.18 inch

Run-off factor considered = 50% of annual rain fall

Average Annual Runoff = 24.18 inch * 50% = 12.09 inch

Sediment yield of a sediment basin has direct impact of local terrain, climate, vegetation, soils, agricultural practices & land use pattern of catchment area of the sediment basin aforesaid factors varies from basin to basin therefore, Dandy & Bolton has category stated that use of the equation to predict sediment yield for a specific location would be unwise because of the wide variability caused by local factors not considered in the equation development. Actual sediment yield form individual drainage basins may vary 10-fold or even 100-fold from computed yields. In the

present proposal, for calculating the yield, a factor of 50 folds has been considered.

$$S = 1965*(e^{-0.055*9.055})*[1.43-0.26\ Log(1.62)]*50$$

Therefore the Total Sediment yield for micro watershed basin of the area as per SLUSI Map shown in next page which covers an area of 1.08 mi^2 will be = 77,650 Tonnes/annum

Out of 1.08 mi^2 i.e. 2.80 Km^2, 0.12598 Km^2 is the area of river out of total catchment area. Out of 0.12598 Km^2, 0.089024 Km^2 is the area of the sand block considered. So, 54,876 Tonnes/Annum is the sediment yield per annum for the proposed sand block.

Our average Production Capacity is 50,445 TPA (ROM), which is less than sediment yield per annum.

Micro Watershed Basin of the area as per SLUSI Map

5.0 QUARRYING

The Ordinary sand in the River is well exposed right on the surface; Quarrying will be continued from the upstream of the block towards the

down-stream of the block i.e. from South West to North East. An open cast, semi-mechanised method will be adopted to operate the quarry. The annual average saleable production is about 45,400 tons/ year. Semi-mechanised operations will be continued for extraction of ordinary sand, screening and stacking by keeping the productivity and safety in mind. After screening, the rejection will be used for strengthening the banks of the river which help to prevent the erosion of the river banks. Excavation and loading will be carried out by using JCB/ Excavator and trucks. No drilling is required as material is non-compact in nature.

Quarrying plan for production and development is shown in Plate No. 5. Sand is available to a depth of about 3.5-4.0 meter. Hence it is proposed to mine only to a depth of 1.0 meters. Extraction will be advanced towards the upper stream. The ultimate pit limit in this case is up to the end of the boundaries of the lease. Since the Blocks are identified in the corner of the River, 1/8th of the river bank width is developed within the banks of the River on either side where the soil is available for growth of plants. This will enable to prevent the erosion of the banks.

For production, it is proposed to work from highest RL to lowest RL i.e. from South-West to North-East (Plate No.5). An approach road will be made along the boundary but outside the lease to connect the road to the working area and the same road will be used for transport.

Conceptual Mining Plan

Life of the mine in this case is out of subject for discussion, as the extraction and replenishment is a continuous process. Depletion and addition of ordinary sand is to be balanced by keeping the production level always low comparing to the replenishment.

i) Life of the Mine:

At the given rate of proposed saleable ordinary sand during the plan period will be average production of 45,400 tons/annum. Unlike other

minerals, river sand will never deplete completely. It gets replenished after every monsoon, depending on the topography, local geology, weather conditions, etc. Hence, the question of the "life of the mine" will never arise for river sand quarrying. The rejects in the form of pebbles and clay will be used for strengthening of the river bank.

ii) Ultimate pit limit:

The ultimate pit limit in this case is up to the end of the boundaries of the lease. Since the Green belt is developed along the banks of the River where the soil is available for growth of plants. This will enable to prevent the erosion of the banks.

iii) Exploration:

No exploration is proposed.

iv) Production during subsequent plan period:

Based on the tentative reserves estimated after replenishment during the subsequent plan period, production plan will be prepared.

v) Top-Soil Utilization:

There is no top soil to be produced in the lease period.

vi) Waste Disposal:

During the plan period, about 25,225 tons of waste will be removed/ excavated and the same will be used for strengthening the banks of the river which help to prevent the erosion of the river banks.

vii) Mineral rejects and Sub-grade ores:

There will be 10% generation of sub grade or mineral rejects from this area. Non-commercial product after screening will be dumped back in the worked out areas as a part of reclamation.

viii) Program of afforestation:

It is proposed to develop green belt by planting Agave, Chrysopogon zizanioides (Khus Grass), Croton Species which are locally seen, at the

banks of the river to prevent the erosion of the adjoining soil banks. Plantation shall be made all along the banks of the river and also along the roads. Local spices will be identified for plantation of the green belt. Afforestation will be done every year by planting 100 numbers of plants.

ix) Reclamation/Rehabilitation of worked out area:

In this area the sand mining will be done up to a depth of 1.0 m from the surface, hence after quarrying the sand, the height of the area will be reduced to 1.0 m down from the existing level. After raining, the fresh sand will be replenished in the dug-out pit naturally in the monsoons. Therefore, reclamation as such is not proposed in this area. However, it is proposed to undertake Plantation shall be made all along the banks of the river and plantation along the mine road connecting to main village road and on the side of river bund to avoid erosion and dust rise due to transportation. In this area the growth rate of the plantation is anticipated to be about 80%.

Mining

i) Open Cast Mining:

- An open cast, semi-mechanised method will be adopted to operate the quarry. The annual salable ordinary sand production is about 45,400 tons/year.
- Quarrying plan for production and development is shown in Plate No.5.
- For production, it is proposed to work from highest RL to lowest RL (ref. Plate No. 5)
- An approach road will be made along the boundary but outside the lease to connect the road to the lease area and the same road will be used for transport.

ii) Under Ground mines:

Not applicable.

iii) Extent of mechanization:

JCB/Excavator shall be used for extraction, loading, processing in the river. The loading equipments like JCB, Tractor mounted loaders, Tippers may be used at the river banks for loading. The number of Loaders & Tippers, depending on the requirement of dispatches shall be used at the banks of the River.

iv) Haulage and Transport equipment:

The ordinary sand extracted by using JCB/Excavater. The material is screened by using gravity screens and the saleable product up to 8mm size sand is stacked separately in the identified stock yards for dispatches by 10 ton tippers to the consumer point.

Sl. No.	Machineries
1	2 Excavators/JCB
2	6 Tippers
3	1 Sand Screening Machine (If Required)

v) Miscellaneous:

-Nil-

6.0 DRILLING & BLASTING

a) Drilling:

No Drilling and blasting is required in the quarrying process for ordinary sand, as the ordinary sand is course grained and not compacted, it is extracted semi-mechanically.

b) Blasting:

As the ordinary sand is course grained and not compacted, it is removed semi-mechanically.

c) Whether secondary blasting is needed, if so, describe in brief:

- Ordinary sand from the River is removed by semi-mechanised method.

- No drilling and blasting is used.

d) Storage of Explosive:

Blasting is not proposed in the quarry, Hence no explosive is used for the purpose of blasting.

7.0 Mine Drainage

a) On the observation from nearby bore wells, likely depth of the saturation point of ground water is about depth of 50 to 60 m in surrounding areas. Whereas the ground water in sand bed is just below 8 to 9m depth.

b) Working expected to reach 550.5m RL at South-West boundary and 548.5 m RL at North-East boundary of the lease during lease period.

c) Quantity and quality of water likely to be encountered, their pumping arrangement and places where this mine water is finally proposed to be discharged. As such there is no possibility for encountering any water source during the plan period. Sand will be extracted only to a depth of 1.0 meters. During the monsoon, quarrying operations will be suspended. Any rain water, accumulated in the pit during monsoon, will be naturally slowdown over a period of time.

8.0 Stacking of mineral rejects and disposal of waste:

The nature and quality of top-soil over burden waste and mineral rejects likely to be removed during the next five years:

During the plan period, about 25,225 tons of waste will be removed/ excavated and the same will be used for strengthening the banks of the river which help to prevent the erosion of the river banks.

9.0 Use of Mineral:

The ordinary sand is the Construction material. Ordinary sand from the River bed of this quarry will cater the need for the construction activities in and around the quarry or to the distant places depending on the need.

10.0 OTHERS:

a) Site services:

Since Sangala is nearest village situated 1.0 Km away from Applied quarry area, General labor will be engaged on daily wages from this village. Facilities like drinking water, first-aid station, rest shelter, latrines and urinals will be provided and maintained outside in the lease area.

Potable Drinking water will be supplied to the mines from bore well through the water cans. No colony is maintained within the quarry as the workers come from the Sangala village which is at 1.0 km away from the quarry.

b) Employment Potential: The break –up of the employment is given below.

- In all, there will be about 10 workers for the saleable ordinary sand production of 227 tons/day
- The break –up of the above employment is given below.
- Quarry will be operated only in the dry season
- Assuming only 200 days quarry will be in operation in a year
- Hence number of production days: 200
- Average Production per Annum 45,400 tons/year
- Average Daily Production: 227 Tons/ Day
- Total General Labour required: 10 and Apart from the labour one supervisor will take care of the safe working of the labour.

11.0 MINERAL PROCESSING:

No mineral processing is proposed except semi-mechanised extraction and screening.

PART–B

12.0 ENVIRONMENTAL MANAGEMENT PLAN:

(a) Existing Land use pattern:

i) Base line information:

- The extent of the lease block granted under notification is 22-00 Acres (8.9 Ha).
- Entire Block of Sangala leaving behind the green belt area is proposed for quarrying the ordinary sand during the Lease period.
- The present land use pattern, at the end of Plan Period & at the end of Lease Period, is as follows (Please refer Plate No.3, 5 & 8).

LAND USE PATTERN WITHIN THE LEASE AREA

OF RIVER SAND BLOCK

Sl. No.	Item	Existing / present (Acres)	End of lease Acres
1.	Area under mining	-	22-00
2.	Storage of Top soil	--	--
3.	OB/dump	--	--
4.	Mineral Storage	--	-
5.	Infrastructure	--	--
6.	Roads	-	-
7.	Railways	--	--
8.	Buffer Zone (to match with min. 1/8th width of the River)	--	--
9.	Tailing Pond	--	--
10.	Effluent Treatment Plant	--	--
11.	Mineral Separation Plant	--	--
12.	Township Area	--	--
13.	Others (Unused Area)	22-00	-
	Total	**22-00**	**22.00**

ii) Water Regime:

There are no natural springs in the area. The water table is at about 8 to 9 meters below the ground level. The drainage pattern is dendritic to sub dendritic in nature.

iii) Flora and Fauna:

The applied area is sandy barren land. The soil existing in the area is unfertile. Therefore no trees are grown. Hence, in this area few small plants and thorny trees are there.

No wild animals are witnessed in the vicinity of the area since 50 years as reported by local population.

iv) Quality of air, ambient noise level and water:

So far, the study on quality of air, ambient noise level and water is not carried out in the specific area. However, the area around the applied area is devoid of any industry.

- **Air Quality:** In general the SPM, SO_2 and NOx concentration in the region may be within the permissible limits, as it is a small scale quarrying.
- **Ambient noise level:** The noise levels are very low in this vicinity.
- **Water quality:** The quality of ground water is fairly good. There is no liquid waste discharge from mining activity, which is likely to pollute water.

v) Climatic Conditions:

The area has dry climate. The average rain fall per annum of Ramadurg Taluk is about 614mm. The highest temperature will be 40^0 C during summer and 18^0 C during winter nights. The relative humidity is about 26 to 91%. Moderate wind velocities in east to west directions are experienced during monsoon seasons.

vi) Human Settlement:

There is no habitation in the area. No villages are situated within the area. Workmen and staff come from the nearby villages. So, there is no displacement involved. The villages falling within the buffer zone of 5.0 kms from the lease boundary are given in key plan (Plate No. 1)

vii) Public buildings, places and monuments:

No public buildings, places, monument etc., exist within the applied area or in the vicinity.

viii) Whether the area falls under notified area under water Act. 1974:

Entire Karnataka falls under the notified area of the above act. Suitable action and remedial steps will be taken in case any obligation arises from the above said Act on the applicant.

(b) Environment Impact assessment statement:

i) Landscape:

The area is a plain land. There will be working pit of 1.0 meter in the Applied area. The landscape is obliterated to some extent. Again the pit will be replenished to some extent by the flow of water during Monsoon.

ii) Soil and Land use pattern:

There is no topsoil in the Applied area. About 22-00 Acres of land will be used for quarrying of ordinary sand. Statutory buildings are away from the Applied area.

iii) Agriculture:

Due to quarrying agriculture will not be affected around the lease area. Only seasonal rain fed crops are grown such as Jawar, Rice, Chilies, Gram, Ground nut, Sun flower and other oil seeds, Sugar cane, Maize etc.

iv) Forest:

As there is no forest area in the vicinity, and hence, there can be no effect on the forest area.

v) Vegetation:

The area is covered by the bushes and thorny plants at the banks of the River.

- **Air quality:** No pollution is expected due to the quarry operation as the method adopted is semi-mechanical in a small scale. Therefore, the SPM count in the air will not increase. Blasting is not adopted in the quarry, hence major air pollution is avoided to the maximum.
- NOx, SO_2 and CO values are expected to be within the permissible limits due to proposed, semi-mechanised quarrying. Effect of quarrying is minimal.
- **Water Quality:** Since it is a seasonal nallah where water flows for about 5 months only. There is no toxic or poisonous discharge in to the drains from mining operations. So, quality of water shall not be affected. But, in the surface water some suspended silt particles may find their way during rainy season. However no mining operations are proposed during the rainy season.
- **Noise Levels:** Since it is small scale quarrying, where there is no drilling and blasting is proposed, there will be no back ground noise levels at the site. The area is away from roads where frequent traffic is encountered. General noise levels are expected to be less than 80 drain working of the mine.
- **Vibration levels (due to blasting):** Blasting is not adopted in the quarry, Hence no vibration is apprehended in the mine, major air pollution is avoided to the maximum.
- **Water Regime:**
    - **Surface Water:** Here, surface water is the rain water during monsoon. No workings are proposed during the monsoon season. Therefore, the rain water passing from the mine working does not affect water quality.

- **Ground Water:** The ground water will not be affected as the mining operations are conducted at shallow a depth which is at much higher levels than the ground water level. The ground water table is about 8 to 9 meters below the general ground level, whereas the sand removal will be to a depth of 1.0 meters only.

vi) Socio/ Economic:

- **Socio and demographic profile:** There are Fifteen (15) villages including hamlets within the buffer zone (5.0km) and they all depend on agriculture and related activities. Since the quarrying is on small scale, no health problems are anticipated as well as safety due to quarrying operations.
- **Occupational health and safety:** No dust will be generated during quarrying operations as it is semi-mechanically operated in a small scale. No Drilling operations carried out. As the quarrying is on a small scale, there is no generation and impact of dust. Regarding safety, all the safety appliances shall be provided to those working in the quarry.

vii) Public buildings, places and monuments:

The impact of the proposed quarrying is nil as there are no public buildings, places and monuments in the vicinity.

(c) Management plan:

i) **Storage and preservation of the top soil:** There is no topsoil to be produced in the plan period in the proposed quarry. However Khus Grass, Agave, Croton Species which are locally seen is proposed to planted along the banks of the river to prevent the erosion of the adjoining soil banks.

ii) **Proposals for reclamation of land affected by abandoned quarries and other mining activities during five years:** Since it is a River

with water flow for about 5 months a year, there is no vegetation grown in the area. Therefore, no loss of vegetation is expected in the area due to quarrying operation. It will not be possible to go for reclamation concurrent to quarrying operations; however, the sand extracted is replenished over a period of time.

iii) **Program of year-wise afforestation for the initial five years:** It is proposed to develop green belt by planting Agave, khus grass, Croton Species which are locally seen, at the banks of the river to prevent the erosion of the adjoining soil banks. It is proposed to plant 100 saplings every year, during the first two years, on the banks of the river and along the approach road.

iv) **Measures to control erosion/ sedimentation of water course:** It is proposed to Plant Agave Americana, Crotansparcifloraon along the banks of the river to prevent the soil erosion.

v) **Treatment and disposal of water from mine:** No mineral beneficiation will be conducted using water and hence, the question of treating water does not arise.

vi) **Measures for minimizing adverse effects on water regime:** As such, water regime is not affected. Hence, a measure for minimizing adverse effects on water regime does not arise.

vii) **Protective measures for ground vibrations/ air blast caused by blasting:** No drilling and Blasting is proposed in the quarry. No Vibration due to blasting is apprehended.

B.N.

Sri Shrinidhi B.N.
RQP/BNG/314/2013/A
Valid Upto:11/07/2023

PART –C

13.0 PROGRESSIVE MINE CLOSURE PLAN:

The Progressive Mine closure Plan is prepared, as components of Quarry Plan under Rule 23 B (2) of MCDR 1988. The guidelines issued by Indian Bureau of Mines for PMCP have been followed:

1.0 Introduction:

a) Name of the lessee and Address: Abhishek B. Iliger,
S/o Basavaraj,
H. No. 182/6, Plot No. 10/11,
Vidhya Nagar, 1st Cross,
Near Green Park Youth Club Road,
Gokak; Belagavi; Karnataka-591307.

b) Location of the area:

The lease area is demarcated on the Topo-sheet of the Survey of India and enclosed vide Plate No. 1 as Key plan.

District	Taluk	Village	Area in Acres	Ownership
Belagavi	Ramdurg	Sangala Block-1	22-00Acres (8.9Ha)	Abhishek B. Iliger, S/o Basavaraj, H. No. 182/6, Plot No. 10/11, Vidhya Nagar, 1st Cross, Near Green Park Youth Club Road, Gokak; Belagavi; Karnataka-591307.

Boundaries: North: Malaprabha River and Adjacent Sy. No. 133, 135, 131(P),128,126,125,146(P); South: Malaprabha River and Adjacent Sy. No. 132,131(P),127,126,125,123(P)&122(P); East: Malaprabha River; West: Malaprabha River;

The latitude and Longitude of the area is given below

SL.NO.	CO-ORDINATES	
	LATITUDE	LONGITUDE
A	15° 53' 29.39"	75° 25' 11.89"
B	15° 53' 33.70"	75° 25' 34.36"
C	15° 53' 33.14"	75° 25' 35.95"
D	15° 53' 28.47"	75° 25' 52.87"
E	15° 53' 26.47"	75° 25' 52.88"
F	15° 53' 30.02"	75° 25' 37.16"
G	15° 53' 30.72"	75° 25' 35.64"
H	15° 53' 27.55"	75° 25' 13.11"

c) Extent of the area : 22-00 Acres (8.90 Ha).

d) Type of the lease area : Quarry lease is in the River Malaprabha.

e) Present Land use pattern:

The present land use pattern is shown below table. As on date no mining is carried out in the Block.

Type of Activity	Present land use as on date (in Acres)
Area excavated	-
Storage of top soil	-
Overburden/ dumps	-
Infrastructure	-
Roads	-
Sub Grade Dump	-
Green Belt	-
Effluent Treatment plant	-
Area for statutory building	-
Afforestation	-
Agricultural fields	-
Area remains untouched	22-00 Acres (8.90 Ha)
Total	**22-00 Acres (8.90 Ha)**

f) Method of Mining:

Quarrying is operated by an open cast, semi-mechanical method. Screening is carried out to segregate the oversize debris if necessary. Sand is loaded in to 10 ton tipper and stocked at designated area.

As the River sand is removed for a depth of only 1.0 meter, no benches are proposed during the quarrying of River Sand. Pit slope is maintained at it's limits.

g) Mineral Processing:

No processing is involved within the quarry except semi-mechanical screening to segregate the oversize pebbles.

1.1 Reasons for closure : Not applicable

1.2 Statutory obligations : Not applicable

1.3 Closure Plan Preparation :

a) Applicant : Abhishek B. Iliger,
S/o Basavaraj,
H. No. 182/6, Plot No. 10/11,
Vidhya Nagar, 1st Cross,
Near Green Park Youth Club Road,
Gokak; Belagavi; Karnataka-591307.

b) Name and Address of the RQP:

Name	Address
Shri Shrinidhi B.N. **RQP/BNG/314/2013/A** **Valid Upto:11/07/2023**	Srinidhi. B.N #53, 2nd Stage, 2nd Cross, Near Maruthi Temple, Gangothri Layout Mysore-570009.

b) Executing Agency : Lessee

2.0 MINE DESCRIPTION:

2.1 Geology:

i) **Topography of the area:** The area is on Plain River having very mild slope. It has very gentle slope from South-West to North-East direction. The highest and lowest RL are 552m & 550m respectively. The maximum relief is 2m.

Regional geology:

Geologically the Malaphrabha basin comprises of the following geological formations

Recent Soils

Tertiary basalts

Sedimentary formations of pre- Cambrian age

Archaean Gneisses

The major parts of the basin are covered by tertiary basalts and Sedimentary formations of Pre-Cambrian age. Northern portion of the district is a plateau region formed by basaltic lava flows, which represents "Deccan peneplain". Various basalt flows formed one over another similar to sedimentary formations.

The sedimentary formations of Malaprabha river basin are of Pre-Cambrian age. These rocks are confined in the Southeastern part of the Basin. The Sedimentary litho-units present are belonging to the Kaladgi series lying over granitic gneisses corresponding to the Archaean unconformably. Quartzarenites, argillites and conglomerates constitute the sedimentary rocks which trend a general E-W direction with a low northerly dip. The argillites are observed to rest conformably over quartzarenites.

2.2 Reserves:

For estimation of available sand reserves, trial pits are made at regular intervals as per UNFC Norms and the sand deposit is found to be upto a depth of 3.5 to 4.0m in the identified sand block area. Volume of the ore reserve in the block is estimated by multiplying the plan area by the depth proposed for quarrying of the sand. Specific gravity of the ordinary sand is considered as 1.70 for the purpose of computing the Reserve.

Mineable reserves are estimated only to a depth of 1.5 meters, which is proposed for quarrying. About 90% of the total reserves are considered for

the commercial purpose. Total estimated geological and mineable reserves are as under:

GEOLOGICAL RESERVES					
Area in Sq. m.	Average Depth Of The Block In M.	Total Volume In Cu. M.	Bulk Density **Ton/ Cu.M**	**Total Quantity In Tonnes**	**Saleable Sand (90 %)**
89024	3.5	3,11,584	1.70	5,29,693	4,76,723
MINEABLE RESERVES					
Area In Sq. M.	Average Depth Of The Block In M.	Total Volume In Cu. M.	Bulk Density **Ton /Cu.M**	**Total Quantity In Tonnes**	**Saleable Sand (90 %)**
89024	1.5	1,33,536	1.70	2,27,011	2,04,310

2.3 Method of Mining:

An open cast, semi-mechanical method will be adopted to operate the quarry. Screening is carried out to segregate the oversize debris if necessary. Sand is loaded in to 10 ton tipper and stocked at designated area.

As the River sand is removed to a depth of only 1.0 m, no benches are proposed during the quarrying of River Sand. Pit slope is maintained at it's limits.

Total Mineable reserves estimated are Given Above.

2.4 Mineral Beneficiation

Not applicable.

3.0 Review of implementation of Mining Plan/ Scheme of Mining Including 5 years progressive closure plan up to final closure of Mine: As the river sand quarrying requires Environment clearance for the first time in view of the guide lines issued by MOEF, Review of Mining plan / scheme of Mining is not Applicable.

4.0 Closure Plan:

4.1 Mined out land:

Quarrying is carried out only to a depth of 1.0m over the entire area as specified in the during the five years plan period. No danger is apprehended during the subsequent period because of the following reasons

a) As the mined out area is not so deep,
b) At the pit limit area pit angle is maintained at less than 30^0
c) During the course of monsoon, the quarry operations will be suspended and there will be reduction of pit angle due to rains. This makes the pit limits safe.

Hence where ever required and where the danger is apprehended, fencing is erected to prevent inadvertent fall of persons/ animals.

(a) Reclamation and Rehabilitation Proposal of Mined out land (Ha)

Due to the replenishment every year during the monsoon, additional sand will be added in the river course and there will not be any life limit for the River sand mining. Hence Reclamation and Rehabilitation is not proposed. Quarrying shall not be continued below the water level or to the extent of river bed at any point of time.

4.2. Water Quality Management:

(a) Surface water:

Mining is continued in the River only during the dry season only to a depth of 1.0 m. All activities are suspended during monsoon period and hence there is no pollution caused to the water which is expected to flow only during monsoon period.

(b) Ground water:

Proposed mining depth will be only 1.0 m, the ground water will not be affected as the mining operations are conducted at shallow a depth which

is at much higher levels than the ground water level. The ground water table is about 8 to 9 meters below the general ground level.

(c) Air Quality Management:

Air is not polluted on the surface because there is no mining machinery deployed for the purpose of extraction of River sand and further there is no mineral beneficiation. Only semi-mechanical mining is carried out in a small scale. Hence there is no air pollution is expected during the quarrying period. There is only a semi-mechanical quarrying in a small scale without blasting; hence no air pollution is expected due to sand mining.

(d) Waste Management:

There is 10% of wastage in the form of oversize pebbles generated while producing the saleable sand. Same will be used for strengthening the banks of the river which help to prevent the erosion of the river banks.

(e) Top soil Management:

The lease area is covered in the River, no top soil is expected during the course of sand extraction and hence the storage and utilization of top soil does not arise.

(f) Tailing Dam Management:

Not applicable.

(g) Infrastructure:

All statutory infrastructures will be provided by the lessee in the near vicinity of the lease area for the purpose of sand quarrying. Infrastructures will be provided at the banks of the rivers to prevent the river pollution. At the time of closure of quarrying operations any infrastructure provided will be destructured, dismantled and disposed.

(h) Disposal of Machinery:

In case of sand mining, no machinery is proposed in the lease area for the purpose of sand extraction. Hence there is no disposal of any Machinery.

(i) Safety& Security:

Quarrying operations are proposed only to a depth of 1.0 m, the area mined will not cause any dangerous situation. However at the end of the mining operations, the area where danger is apprehended will be fenced properly with single opening for workers engaged in closure plan work.

(j) Disaster Management & Risk Assessment:

No high risk accidents are anticipated as it is a small scale semi-mechanical mining with no machinery deployed for the purpose of sand extraction. However, in case of any eventuality the statutory person in charge will be available for contact who in turn reporting to District Monitoring committee.

(k) Care and maintenance during temporary discontinuance:

There is temporary discontinuance of the quarry only during monsoon season. Only 1.0 m quarrying depth is proposed for sand extraction. Water flow in the river is expected during the monsoon season during which, there will be no activity of sand extraction. However care will be taken by frequent inspections by the statutory supervisor.

5.0 Economic Repercussions of Closure of Mine and Manpower Retrenchments:

Only few workmen are deployed for extraction of sand. Most of the labor is from the surrounding area, which is basically agriculture land. In case of closure, they will go back to their family occupation. However the mine closure does not arise in the present quarry plan period.

6.0 Time scheduling of abandonment:

The abandonment of mine does not arise now.

7.0 Abandonment cost:

The abandonment of mine does not arise now. Hence no cost is involved.

8.0 Financial assurance:

As per rule 23(F)(2) of MCDR (amendment) Rules, 2003 and as per 8L of KMMC (amendment), the lessee is prepared to submit the financial assurance in any form desired by the Indian Bureau of Mines or any other Government Agency. The area occupied by the proposed mining and allied activities at the end of present plan are as follows:

Sl. No.	Head	Area put on use at start of plan (in Acres)	Additional Requirement During plan period (in Acres)	Total (in Acres)	Area Considered As fully Reclaimed & Rehabilitated (In Acres)	Net area considered for calculation (In Acres)
1.	Area under mining	--	22-00	22-00	--	22-00
2.	Storage of Top soil	--	--	--	--	--
3.	OB/ dump	--	--	--	--	--
4.	Mineral Storage	--	-	--	--	--
5.	Buffer Area for River Bank (to match the 1/8th Width of the River)	--	-	--	--	--

6.	Roads	--	--	--	--	--
7.	Railways	--	--	--	--	--
8.	Green Belt inside the lease	--	--	--	--	--
9.	Tailing Pond	--	--	--	--	--
10.	Effluent Treatment Plant	--	--	--	--	--
11.	Mineral Separation Plant	--	--	--	--	--
12.	Township Area	--	--	--	--	--
13.	Others	--	--	--	--	--
	Total Lease area	--	22-00 (8.90 Ha)	22-00 (8.90 Ha)	--	22-00 (8.90 Ha)

The total area degraded by the mining and related activities during plan period is 22-00 Acres (8.90Ha) the financial assurance @ INR 10,000/- per Acre is estimated to 2,20,000/-.

9.0 Certificate

Enclosed

10.0 Plans, Sections Etc

Enclosed

QUARRYING PLAN APPROVED

Deputy Director

DATE:

Sri Shrinidhi B.N.
RQP/BNG/314/2013/A
Valid Upto:11/07/2023

ಆಧಾರ್

ಭಾರತೀಯ ವಿಶಿಷ್ಟ ಗುರುತು ಪ್ರಾಧಿಕಾರ

ಭಾರತ ಸರಕಾರ

Unique Identification Authority of India

Government of India

ಆರ್ಕ ಕ್ರಮ ಸಂಖ್ಯೆ /Enrolment No.: 1074/13027/00660

To
Abhishek B Biger
(ಅಭಿಷೇಕ ಬಿ ಬಿರ್ಗರ್)
S/O Basavaraj
House No 182/6 plot no 10/11
vidya nagar 1st cross Near Green park yuth club road
Gokak
Belgaum
Karnataka - 591307
Mobile 9448125613

Date: 20/11/2011

Ref. No.: 00005293/00146842/00164556

UB 07074322 6 IN

ನಿಮ್ಮ ಆಧಾರ್ ಸಂಖ್ಯೆ / Your Aadhaar No. :

2151 6726 2238

ಆಧಾರ್ – ಶ್ರೀಸಾಮಾನ್ಯನ ಅಧಿಕಾರ

ಭಾರತ ಸರಕಾರ
GOVERNMENT OF INDIA
ಅಭಿಷೇಕ ಬಿ ಬಿರ್ಗರ್
Abhishek B Biger
ಹುಟ್ಟಿದ ವರ್ಷ / Year of Birth : 1988
ಪುರುಷ / Male

2151 6726 2238

ಆಧಾರ್ – ಶ್ರೀಸಾಮಾನ್ಯನ ಅಧಿಕಾರ

U.B. SHRESTHI
B.A. LL.B (Spl)
ADVOCATE & NOTARY
BELAGAVI

COPY

Government of India

AADHAAR

ಸೂಚನೆ

- ಆಧಾರ್ ಗುರುತಿನ ರುಜುವಾತು, ನಾಗರಿಕತೆಯದ್ದಲ್ಲ
- ಗುರುತು ರುಜುವಾತುಪಡಿಸಲು ಆನ್ಲೈನ್ ಪ್ರಮಾಣೀಕರಣ ಮಾಡತಕ್ಕದ್ದು
- ಸಹಾಯತೆಗಾಗಿ :–

1800 180 1947 ಕರೆ ಮಾಡಿ, ಅಥವಾ

ಪೀ. ಓ. ಬಾಕ್ಸ್ ನಂ. 1947, ಬೆಂಗಳೂರು–560001 ಗೆ ಪತ್ರ ಬರೆಯಿರಿ, ಅಥವಾ

help@uidai.gov.in ಗೆ ಇಮೇಲ್ ಮಾಡಿ

INSTRUCTIONS

- Aadhaar is proof of identity, not of citizenship.
- To establish identity, authenticate online.
- In case any help is required :-

Call 1800 180 1947 or;

Write to P.O. Box No. 1947, Bengaluru - 560 001 or

Email at help@uidai.gov.in

ಭಾರತೀಯ ವಿಶಿಷ್ಟ ಗುರುತು ಪ್ರಾಧಿಕಾರ
UNIQUE IDENTIFICATION AUTHORITY OF INDIA

ವಿಳಾಸ: S/O ಬಸವರಾಜ, ಮನೆ ನಂ: 182/6 ಪ್ಲಾಟ್ ನಂ: 10/11, ವಿದ್ಯಾ ನಗರ 1ನೇ ಕ್ರಾಸ್ ಗ್ರೀನ್ ಪಾರ್ಕ್ ಯುವ ಕ್ಲಬ್ ರೋಡ್, ಗೋಕಾಕ್, ಬೆಳಗಾವಿ, ಕರ್ನಾಟಕ, 591307

Address: S/O Basavaraj, House No 182/6 plot no 10/11, Vidya nagar 1st cross Near Green park yuth club road, Gokak, Belgaum, Karnataka, 591307

Aadhaar - Shreesaamanyana Adhikara

ANNEXURE-1

REGISTERED

ANNEXURE-2

ಕರ್ನಾಟಕ ಸರ್ಕಾರ

ಉಪ ನಿರ್ದೇಶಕರ ಕಛೇರಿ, ಗಣಿ ಮತ್ತು ಭೂ ವಿಜ್ಞಾನ ಇಲಾಖೆ, ಎಪಿಎಂಸಿ ರಸ್ತೆ, ಸಂಗಮೇಶ್ವರ ನಗರ, ಬೆಳಗಾವಿ

ದೂರವಾಣಿ/ Telephone: 0831-2428042, E-Mail: ddbelgaum123@gmail.com

ಸಂಖ್ಯೆ/ಗಭೂಇ/ಉನಿ/ಸಾ.ಮ/ಗ.ಗು/2017-18/ 576

ದಿನಾಂಕ: 04.05.2017.

5 MAY 2017

ತಿಳುವಳಿಕೆ ಪತ್ರ.

ವಿಷಯ: ಇ ಹರಾಜು ಮೂಲಕ ಸಾಮಾನ್ಯ ಮರಳು ಬ್ಲಾಕ್‌ಗಳ ಹಂಚಿಕೆ ಕುರಿತು.

ಉಲ್ಲೇಖ:
1. ದಿನಾಂಕ 19/04/2017 ರಂದು ನಡೆದ ರಾಮದುರ್ಗ ತಾಲ್ಲೂಕಿನ **ಸಂಗಳ-1** ಗ್ರಾಮದ ಮರಳು ಬ್ಲಾಕ್‌ನ ಇ- ಹರಾಜು.
2. ದಿನಾಂಕ 26/04/2017 ರಂದು ಮಾನ್ಯ ಜಿಲ್ಲಾಧಿಕಾರಿಯವರ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿ ನಡೆದ ಜಿಲ್ಲಾ ಮರಳು ಉಸ್ತುವಾರಿ ಸಮಿತಿ ಸಭೆಯ ನಿರ್ಣಯ.
3. ಕರ್ನಾಟಕ ಉಪ ಖನಿಜಗಳ ರಿಯಾಯಿತಿ ನಿಯಮಾವಳಿಗಳು 1994, ತಿದ್ದುಪಡಿ 2016.
4. ಸರ್ಕಾರದ ಆದೇಶ ಸಂಖ್ಯೆ ಸಿ.ಐ. 320 ಎಂ.ಎಂ.ಎಸ್. 2016, ಬೆಂಗಳೂರು ದಿನಾಂಕ 18.11.2016.

*****

ಮೇಲ್ಕಂಡ ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ, ದಿನಾಂಕ 12.08.2016 ರ ಕರ್ನಾಟಕ ಉಪ ಖನಿಜಗಳ ರಿಯಾಯಿತಿ ನಿಯಮಾವಳಿಗಳು, 1994 ರ ತಿದ್ದುಪಡಿ 2016 ಹಾಗೂ ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಆದೇಶ ಸಂಖ್ಯೆ ಸಿ.ಐ. 320 ಎಂ.ಎಂ.ಎಸ್. 2016, ಬೆಂಗಳೂರು ದಿನಾಂಕ 18.11.2016 ರನ್ವಯ ಬೆಳಗಾವಿ ಜಿಲ್ಲೆಯ ಮೊದಲ ಹಂತದಲ್ಲಿ ಆಯ್ಕೆಯಾದ ಸಾಮಾನ್ಯ ಮರಳು ಬ್ಲಾಕ್‌ಗಳ ಇ-ಹರಾಜು ಪ್ರಕ್ರಿಯೆ ನಡೆಸಲಾಗಿರುತ್ತದೆ.

ರಾಮದುರ್ಗ ತಾಲ್ಲೂಕಿನ **ಸಂಗಳ-1** ಗ್ರಾಮದ ಸರ್ವೆ ನಂಬರ್ ಪ.ಸ.ನಂ: 133, 135, 131, 128, 126, 125, 146 & 132, 131, 127, 126, 125, 123, 122 ಭಾ ಗಳಿಗೆ ಹೊಂದಿಕೊಂಡಂತೆ ಇರುವ ಮಲಪ್ರಭಾ ನದಿ ಪಾತ್ರದ 22-00 ಎಕರೆ ವಿಸ್ತೀರ್ಣವುಳ್ಳ ಸಾಮಾನ್ಯ ಮರಳು ಬ್ಲಾಕ್‌ನ ಇ - ಹರಾಜು ಪ್ರಕ್ರಿಯೆ ದಿನಾಂಕ 19/04/2017 ರಂದು ನಡೆದಿದ್ದು ತಾವು ಪ್ರತಿ ಟನ್ ಸಾಮಾನ್ಯ ಮರಳು ಉಪ ಖನಿಜಕ್ಕೆ 2057.5 ಪ್ರತಿಶತ (ರೂಪಾಯಿ 1234.5/-) ಹೆಚ್ಚುವರಿ ಕಾಲಿಕ ಪಾವತಿ ಮಾಡುವುದಾಗಿ ಘೋಷಿಸಿ ಯಶಸ್ವೀ ಬಿಡ್‌ದಾರರಾಗಿ ಆಯ್ಕೆಯಾಗಿರುತ್ತೀರಿ.

ದಿನಾಂಕ 26.04.2017 ರಂದು ನಡೆದ ಜಿಲ್ಲಾ ಮರಳು ಉಸ್ತುವಾರಿ/ ಗಣಿಗಾರಿಕೆ ಸಮಿತಿ ಸಭೆಯಲ್ಲಿ ಮೇಲ್ಕಂಡ ಬಿಡ್ ಮೊತ್ತವನ್ನು ಅನುಮೋದಿಸಲಾಗಿರುತ್ತದೆ. ಪ್ರತಿ ಮರಳು ಬ್ಲಾಕ್‌ಗೆ ಬಿಡ್‌ದಾರರು ನಮೂದಿಸಿರುವ ಹೆಚ್ಚುವರಿ ಕಾಲಿಕ ಪಾವತಿ, ರಾಜಧನ ರೂ. 60/-, ಜಿಲ್ಲಾ ಖನಿಜ ಪ್ರತಿಷ್ಠಾನ ನಿಧಿ 6/- (ರಾಜಧನಕ್ಕೆ ಶೇಕಡಾ 10 ರಂತೆ), 2% TCS ಹಾಗೂ ಅನ್ವಯಿಕ ಕರಗಳನ್ನು ಗಣಿ ಮತ್ತು ಭೂವಿಜ್ಞಾನ ಇಲಾಖೆಗೆ ಪಾವತಿ ಮಾಡಬೇಕಾಗಿದ್ದು, ಸದರಿ ಮೊತ್ತಕ್ಕೆ ಮರಳು ಉತ್ಪಾದನೆ ಮಾಡಲು ಸಾಧ್ಯವಿರುವ ಎಲ್ಲಾ ವೆಚ್ಚಗಳು ಹಾಗೂ ಗುತ್ತಿಗೆದಾರರ ಲಾಭಾಂಶವನ್ನು ಸೇರಿದಂತೆ ಪ್ರತಿ ಟನ್‌ಗೆ ರೂ. 150/- ಗಳನ್ನು ನಿಗದಿಪಡಿಸಲಾಗಿರುತ್ತದೆ.

ಸದರಿ ಬ್ಲಾಕ್‌ನ ಇ.ಎಂ.ಡಿ. ಮೊತ್ತ ರೂ. 2,42,000/- ಗಳಿಗೆ 4 ಪಟ್ಟು ಭದ್ರತಾ ಠೇವಣಿ ರೂ. 9,68,000/- ಗಳನ್ನು ಈ ಪತ್ರ ತಲುಪಿದ 3 ವಾರಗಳ ಒಳಗಾಗಿ ಕರ್ನಾಟಕ ಉಪ ಖನಿಜ ರಿಯಾಯಿತಿ ನಿಯಮಾವಳಿಗಳು, 1994 ತಿದ್ದುಪಡಿ 2016 ರ ನಿಯಮ 31 ಟಿ (11) ರಂತೆ ಉಪ ನಿರ್ದೇಶಕರ ಹೆಸರಿನಲ್ಲಿ ಡಿ.ಡಿ. ರೂಪದಲ್ಲಿ ಪಾವತಿ ಮಾಡಲು ತಿಳಿಸಿದೆ.

ಅನ್ವಯಿಸುವ - ಅನುಮೋದಿತ ಕ್ವಾರಿ ಯೋಜನೆ (Quarrying plan)/ ಪರಿಸರ ವಿಮೋಚನಾ ಪತ್ರವನ್ನು 3 ತಿಂಗಳೊಳಗಾಗಿ ಸಕ್ಷಮ ಪ್ರಾಧಿಕಾರದಿಂದ ಪಡೆದು ಸಲ್ಲಿಸಿದ ನಂತರ ಈ ಕೆಳಕಂಡ ಶುಲ್ಕಗಳನ್ನು ಪಾವತಿಸಿ ಉಪ ಖನಿಜದ ಗುತ್ತಿಗೆ ಕರಾರು/ ಮಂಜೂರಾತಿ ಪಡೆದುಕೊಳ್ಳಲು ಸೂಚಿಸಿದೆ ಇಲ್ಲವಾದಲ್ಲಿ ಇ.ಎಂ.ಡಿ ಮೊತ್ತವನ್ನು ಮುಟ್ಟುಗೋಲು ಹಾಕಿಕೊಳ್ಳಲಾಗುವುದು.

1. ಸರ್ವೇಕ್ಷಣಾ ಶುಲ್ಕ ರೂ. 500/- ಪ್ರತಿ ಎಕರೆಗೆ – ಒಟ್ಟು ರೂ. 11,000/-
2. ಡೀಡ್ ಮಸ್ತಕ ಶುಲ್ಕ ರೂ. 200/-
3. ಕರ್ನಾಟಕ ಉಪ ಖನಿಜಗಳ ರಿಯಾಯಿತಿ ನಿಯಮಾವಳಿಗಳು 1994, ತಿದ್ದುಪಡಿ 2016 ರ ನಿಯಮ 31 (ಡಬ್ಲ್ಯೂ) (1) i ರನ್ವಯ ಪರಿಸರ ವಿಮೋಚನಾ ಪತ್ರದಲ್ಲಿ ನಿಗದಿಪಡಿಸಲಾಗುವ ಉತ್ಪಾದನೆ ಪ್ರಮಾಣಕ್ಕಿ ಶೇಕಡಾ 25 ರಷ್ಟು ಪ್ರಮಾಣಕ್ಕೆ ಪಾವತಿ ಮಾಡಬೇಕಾಗುವ ರಾಜಧನ ಮೊತ್ತವನ್ನು ಮುಂಗಡವಾಗಿ ಬ್ಯಾಂಕ್ ಗ್ಯಾರಂಟಿ, ನಿಶ್ಚಿತ ಠೇವಣಿ, ಅಥವಾ ಸರ್ಕಾರದಿಂದ ಸೂಚಿಸಲಾಗುವ ಇನ್ಯಾವುದೇ ರೀತಿಯಲ್ಲಿ ಗಣಿ ಮತ್ತು ಭೂವಿಜ್ಞಾನ ಇಲಾಖೆಗೆ Performance guarantee ಸಲ್ಲಿಸಿಸುವುದು.

ಕ್ರ. ಸಂ. 01 & 02 ರ ಮೊತ್ತಕ್ಕೆ ಉಪ ನಿರ್ದೇಶಕರು, ಗಣಿ ಮತ್ತು ಭೂವಿಜ್ಞಾನ ಇಲಾಖೆ, ಬೆಳಗಾವಿ ಹೆಸರಿಗೆ ಬೇಡಿಕೆ ಹುಂಡಿಗಳನ್ನು (ಡಿ.ಡಿ.) ಪಡೆದು ಕಛೇರಿಗೆ ಸಲ್ಲಿಸಲು ತಿಳಿಸಿದೆ. ಮತ್ತು ಈ ಕೆಳಕಂಡ ನಿಯಮಗಳನ್ನು ಪಾಲಿಸಲು ಸೂಚಿಸಿದೆ.

ಅ) ಈ ಆದೇಶವು ತಮಗೆ ಗಣಿಗಾರಿಕೆ ಪ್ರಾರಂಭಿಸುವ ಪತ್ರವಾಗಿರುವುದಿಲ್ಲ. ಈ ಪತ್ರ ಜಾರಿಯಾದ 3 ತಿಂಗಳ ಅವಧಿಯೊಳಗೆ ಸೂಚಿಸಿರುವ ಶುಲ್ಕಗಳನ್ನು ಪಾವತಿಸಿ ತಮಗೆ ಹಂಚಿಕೆಯಾಗಿರುವ ಪ್ರದೇಶದ ಕ್ವಾರಿಪ್ಲಾನ್ ತಯಾರಿಸಿ ಪರಿಸರ ಅನುಮತಿ ಪತ್ರ ಸಲ್ಲಿಸಿದ ನಂತರ 5 ವರ್ಷಗಳ ಅವಧಿಗೆ ಗುತ್ತಿಗೆ ಮಂಜೂರು ಮಾಡಲಾಗುವುದು. ಗುತ್ತಿಗೆ ಅವಧಿ ಮುಕ್ತಾಯಗೊಂಡ ನಂತರ ಗುತ್ತಿಗೆ ನವೀಕರಿಸುವ ಅವಕಾಶವಿರುವುದಿಲ್ಲ.

ಆ) ಗುತ್ತಿಗೆದಾರರು ಗುತ್ತಿಗೆ ಪ್ರದೇಶದ ಸರಹದ್ದುಗಳನ್ನು ಕಾಯಂಕೊಳ್ಳಲು ಸದಿ ಪಾತ್ರದ ದುಂಡೆಯ ವಕ್ಕದಲ್ಲಿ ಸರಹದ್ದುಗಳ ಹಾಗೂ ವಿಳಾಸ ಸಹಿತ, ಗುತ್ತಿಗೆ ವಿವರಗಳನ್ನೊಳಗೊಂಡ ಬೋರ್ಡಗಳನ್ನು ತನ್ನ ಸ್ವಂತ ಖರ್ಚಿನಲ್ಲಿ ನಿರ್ಮಿಸಿ, ಸುಸ್ಥಿತಿಯಲ್ಲಿರುವಂತೆ ಪಾಲಿಸಿಕೊಂಡು ಬರತಕ್ಕದ್ದು.

ಇ) ಈ ಮರಳು ಗಣಿ ಗುತ್ತಿಗೆಯಲ್ಲಿ ಮರಳು ತೆಗೆಯಲು ಮಾತ್ರ ಅನುಮತಿ ನೀಡಲಾಗುತ್ತದೆ, ಮರಳು ಹೊರತುಪಡಿಸಿ ಬೇರಾವುದೇ ಖನಿಜ ದೊರೆತಲ್ಲಿ ಅದನ್ನು ಸಕ್ಷಮ ಪ್ರಾಧಿಕಾರಕ್ಕೆ ಮಾಹಿತಿ ನೀಡುವುದು.

ಈ) ಕೆ.ಎಮ್.ಎಮ್.ಸಿ.ಆಕ್ಟ್ 1994 ತಿದ್ದುಪಡಿ ನಿಯಮ 2016 ರ ನಿಯಮ ಆಕ್ಟ್(23) ರಂತೆ ಮರಳು ಗಣಿಗಾರಿಕೆಯನ್ನು ಬೆಳಿಗ್ಗೆ 6.00 ಘಂಟೆಯಿಂದ ಸಂಜೆ 6.00 ಘಂಟೆಯೊಳಗೆ ನಿರ್ವಹಿಸತಕ್ಕದ್ದು.

ಉ) ಈ ಆದೇಶವು ಸರ್ಕಾರವು ಕಾಲಕಾಲಕ್ಕೆ ಹೊರಡಿಸುವ ಆದೇಶಗಳು ಹಾಗೂ ಸುತ್ತೋಲೆಗಳಿಗೆ ಒಳಪಡುವ ಷರತ್ತಿಗೆ ಒಳಪಟ್ಟಿರುತ್ತದೆ.

ಈ ಪತ್ರವನ್ನು ಕರ್ನಾಟಕ ಉಪ ಖನಿಜಗಳ ರಿಯಾಯಿತಿ ನಿಯಮಾವಳಿಗಳು 1994, ತಿದ್ದುಪಡಿ 2016 ರ ನಿಯಮ 31 ಟಿ (10) ರನ್ವಯ ಜಾರಿಗೊಳಿಸಲಾಗಿದೆ.

ಉಪನಿರ್ದೇಶಕರು/ಸದಸ್ಯ, ಕಾರ್ಯದರ್ಶಿ
ಉಪ ನಿರ್ದೇಶಕರು
ಗಣಿ ಮತ್ತು ಭೂವಿಜ್ಞಾನ ಇಲಾಖೆ
ಬೆಳಗಾವಿ

ಇವರಿಗೆ,

ಶ್ರೀ. ಅಭಿಷೇಕ ಬ. ಈಳಿಗೇರ
ನಂ. 182/6, ವಿದ್ಯಾನಗರ, ಗ್ರೀನ್ ಪಾರ್ಕ ಹತ್ತಿರ
ಗೋಕಾಕ ತಾ., ಬೆಳಗಾವಿ ಜಿಲ್ಲೆ.

ಪ್ರತಿಯನ್ನು:

1. ಮಾನ್ಯ ನಿರ್ದೇಶಕರು, ಗಣಿ ಮತ್ತು ಭೂವಿಜ್ಞಾನ ಇಲಾಖೆ, ಖನಿಜ ಭವನ, ಬೆಂಗಳೂರು ರವರ ಮಾಹಿತಿಗಾಗಿ ರವಾನಿಸಿದೆ.
2. ಮಾನ್ಯ ಜಿಲ್ಲಾಧಿಕಾರಿಗಳು, ಬೆಳಗಾವಿ ಇವರ ಮಾಹಿತಿಗಾಗಿ ಸಲ್ಲಿಸಿದೆ.
3. ಉಪ ವಿಭಾಗಾಧಿಕಾರಿಗಳು, ಬೈಲಹೊಂಗಲ ವಿಭಾಗ ರವರ ಮಾಹಿತಿಗಾಗಿ ಸಲ್ಲಿಸಿದೆ.
4. ತಹಶೀಲ್ದಾರರು, ರಾಮದುರ್ಗ ರವರ ಮಾಹಿತಿಗಾಗಿ ಹಾಗೂ ಮುಂದಿನ ಕ್ರಮಕ್ಕಾಗಿ ಸಲ್ಲಿಸಿದೆ.

FORM-JIR

(See clauses (ii), (iii), (iv), (v) and (vi) of sub rule(1-C) of rule 31-R,)

Joint Inspection and Recommendation report.

(1) Quarrible Sand Reserve Details)Deposit should be shown in 1"=660' and the same should be enclosed with this report). Date:

Sl. No.	Name of the River, River stretch in kms Taluk and District	Portion of the River, sketch in Sand block and its Geo Co-ordinates details		Length of the block recommended for mineral concession (in Mtr)	Average width of the block recommended for mineral concession(in Mtr)	Depth of the Sand block recommended for mineral concession(in Mtr)	Total area of the block recommended for mineral concession(in Sq.Mts)	Total quarriable minor mineral potential in the block (in MTs)	Extent in Acres	Survey No. & Village	Block No.
1	Malaprabha Sangal-I Ramdurg Taluk Belagavi Dist	N-15°53'29.39"	E-75°25'11.89"	1521	58.53	1.50	133536	227011	22	133, 135, 131, 128, 126, 125, 146 & 132, 131, 127, 126, 125, 123, 122(ಭಾ)	1
		N-15°53'33.70"	E-75°25'34.36"								
		N-15°53'33.14"	E-75°25'35.95"								
		N-15°53'28.47"	E-75°25'52.87"								
		N-15°53'26.47"	E-75°25'52.88"								
		N-15°53'30.02"	E-75°25'37.16"								
		N-15°53'30.72"	E-75°25'35.64"								
		N-15°53'27.55"	E-75°25'13.11"								
Total											

(2) Are there any public structures like bridges, drinking water tanks and irrigation ranks within 500 mts from the sand blocks of the river stretch? If so, give details and indicate them on the river stretch and its blocks map. - NO

(3) Whether the area was held previously for sand quarrying by the Public Works Ports and Inland Water Transport Department. If so give sand production and dispatch details o the last quarry period year.- YES.

Sl.No.	Name of the river , Taluk and District			Extent in Acres	Survey No and village	Block No.	Production (in Mts)	Dispatch (in Mts)
1	Malaprabha Sangal-I Ramdurg Taluk Belagavi Dist	N-15°53'29.39"	E-75°25'11.89"	22.00	133, 135, 131, 128, 126, 125, 146 & 132, 131, 127, 126, 125, 123, 122(ಭಾ)	1	-	-
		N-15°53'33.70"	E-75°25'34.36"					
		N-15°53'33.14"	E-75°25'35.95"					
		N-15°53'28.47"	E-75°25'52.87"					
		N-15°53'26.47"	E-75°25'52.88"					
		N-15°53'30.02"	E-75°25'37.16"					
		N-15°53'30.72"	E-75°25'35.64"					
		N-15°53'27.55"	E-75°25'13.11"					
Total								

ANNEXURE-4

(4)Whether any river stretch and its blocks are reserved for the purpose of Government works or for Ashraya or low income group housing. If yes, give details. NO.

(5) Whether any river stretch and its blocks is required to declare as cluster. If yes, give details. NO

(6) Whether any river stretch and its blocks contravene the forest/land revenue, acts and its rules.. If yes, give details. NO

(7) Whether any river stretch and its blocks comes under the eco-sensitive zone or not . If yes, give details. NO

(8) For sand quarrying clear recommendation of the Joint Inspecting Officers (Along with this report, all necessary maps, village maps & Geological sections should be enclosed).

Geologist
Dept. of Mines & Geology
Belagavi

Tahasildar
Of Concerned Taluk
~~Belagavi~~
Ramdurg

Asst. Engineer
Dept. of Mines & Geology
Belagavi

Asst. Commissioner & Chairman
Taluk Sand Monitoring Committee,
~~Belagavi~~
Bailhongal

Deputy Director
Dept. of Mines & Geology,
Belagavi

ANNEXURE-3

खनन योजना तैयार करने के लिए अहर्ता प्राप्त व्यक्ति के रूप में मान्यता

प्रमाण पत्र

CERTIFICATE OF RECOGNITION AS QUALIFIED PERSON TO PREPARE MINING PLAN

(खनिज रियायत नियमावली 1960 के नियम 22सी के अंतर्गत)

(Under Rule 22C of Mineral Concession Rules, 1960)

श्री श्रीनिधी बी.एन. ,पुत्र श्री नरसिम्हा मूर्ती बी.के. निवासी:- डो. नं.6,10thमेन, सरस्वथीपुरम, मैसूर-570009, मैसूर (तालुक), मैसूर (जिला), कर्नाटक (राज्य) जिनका फोटो एवं हस्ताक्षर दिया गया है उनकी योग्यता तथा अनुभवो के संतोषजनक प्रमाण पत्र देने के एवज में एतदद्वारा खनिज रियायत नियमावली 1960 के नियम 22 सी के अंतर्गत खनन योजना / खनन अभियोजना / उत्तरोत्तर खान बंद / अंतिम खान बंद करने की योजना तैयार करने के लिये अहर्ता प्राप्त व्यक्ति के रूप में मान्यता दी जाती है.

Shri Shrinidhi B.N. son of Shri Narasimha Murthy B.K. , Resident of :- D.No.6, 10th Main, Saraswathipuram, Mysure- 570009, Mysure (Taluk), Mysure (Dist.), Karnataka (State) whose Photograph and Signature is appended herewith having given satisfactory evidence of his qualifications & experience is hereby granted RECOGNITION under Rule 22C of the Mineral Concession Rules, 1960 as a Qualified Person to prepare Mining Plan / Scheme of Mining / Progressive Mine Closure Plan / Final Mine Closure Plan.

उनका पंजीकरण क्रमांक / His Registration Number is

आर.क्यू.पी./बेंग/314/2013/ए	/	RQP/BNG/314/2013/A

यह मान्यता दस वर्ष की अवधि के लिए वैध है जो दिनांक **11.07.2023** को समाप्त होंगी

The recognition is valid for a period of Ten Years ending on **11.07.2023.**

खनन योजना / खनन अभियोजना / उत्तरोत्तर खान बंद / अंतिम खान बंद करने की योजना में यदि कोई गलत / झूठ सूचनाएँ दी गई हो तो उनका यह प्रमाण पत्र वापस ले लिया जाएगा.

Furnishing any wrong / false information in the Mining Plan / Scheme of Mining / PMCP / FMCP may lead to withdrawal of this certificate.

आर. क्यू. पी. के हस्ताक्षर/Signature of RQP	B.N.

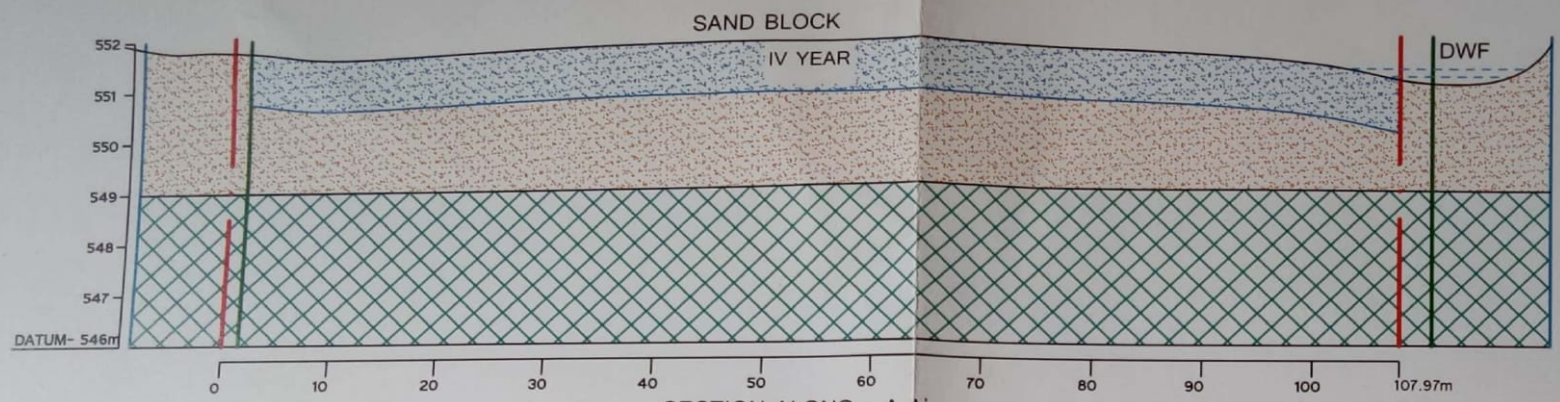
स्थान/Place : **बैंगलोर/Bangalore**

दिनांक/Date : **12.07.2013**

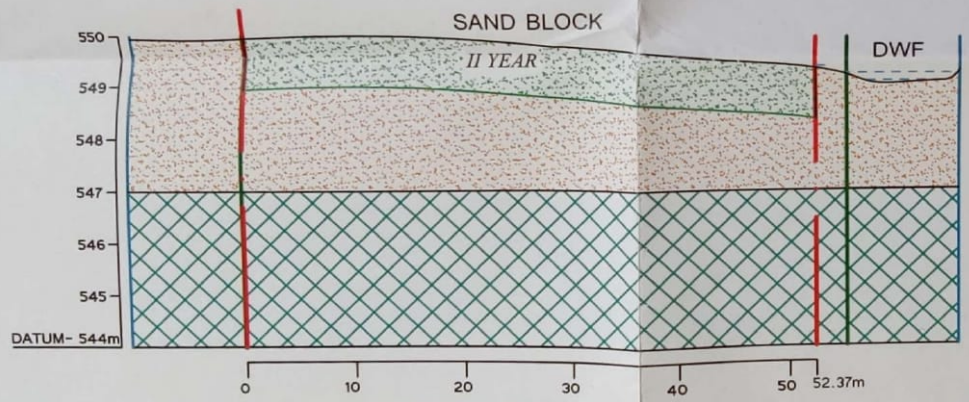
12/07/13

ಬಿ. ಶ್ರೀನಿಧಿ, ಪ್ರಾದೇಶಿಕ ನಿಯಂತ್ರಕ/
B. SRINIDHI, Regional Controller of Mines
ಪ್ರಾದೇಶಿಕ ಗಣಿ ಪರಿಪಾಲಕ
Regional Controller of Mines
भारतीय खान ब्यूरो
Indian Bureau of Mines
ಬೆಂಗಳೂರು / बेंगलूर /BANGALORE

PLATE No. :- 06



SECTION ALONG - A A'



SECTION ALONG - B B'

GENERAL INDEX

- Porposed Mining Block
- River Boundary
- 1/8th of the River Width
- River Sand
- River Bed

YEAR WISE PRODUCTION

- I YEAR
- II YEAR
- III YEAR
- IV YEAR
- V YEAR

VERTICAL SCALE - 1:100 R.F.

HORIZONTAL SCALE - 1:500 R.F.

RIVER SAND BLOCK-1

Of Malaprabha River bed in sangala - Village, Ramadurga - Taluk, Belagavi- District, Karnataka - State.

PRODUCTION & DEVELOPMENT SECTIONS

IN ADJACENT SURVEY No.133,135,131,128,126, 125,146 & 132,131,127,126,125,124,123,122(P).

Area :- 22-00 Acres **Date of Survey :- 28-05-2017**

Certified that the above plan and sections are correct.

QUARRYING PLAN APPROVED

Deputy Director
Dept. of Mines & Geology
BELAGAVI

SHRI SHRINIDHI B.N.
RQP/BNG/314/2013/A
VALID UPTO 11-07-2023

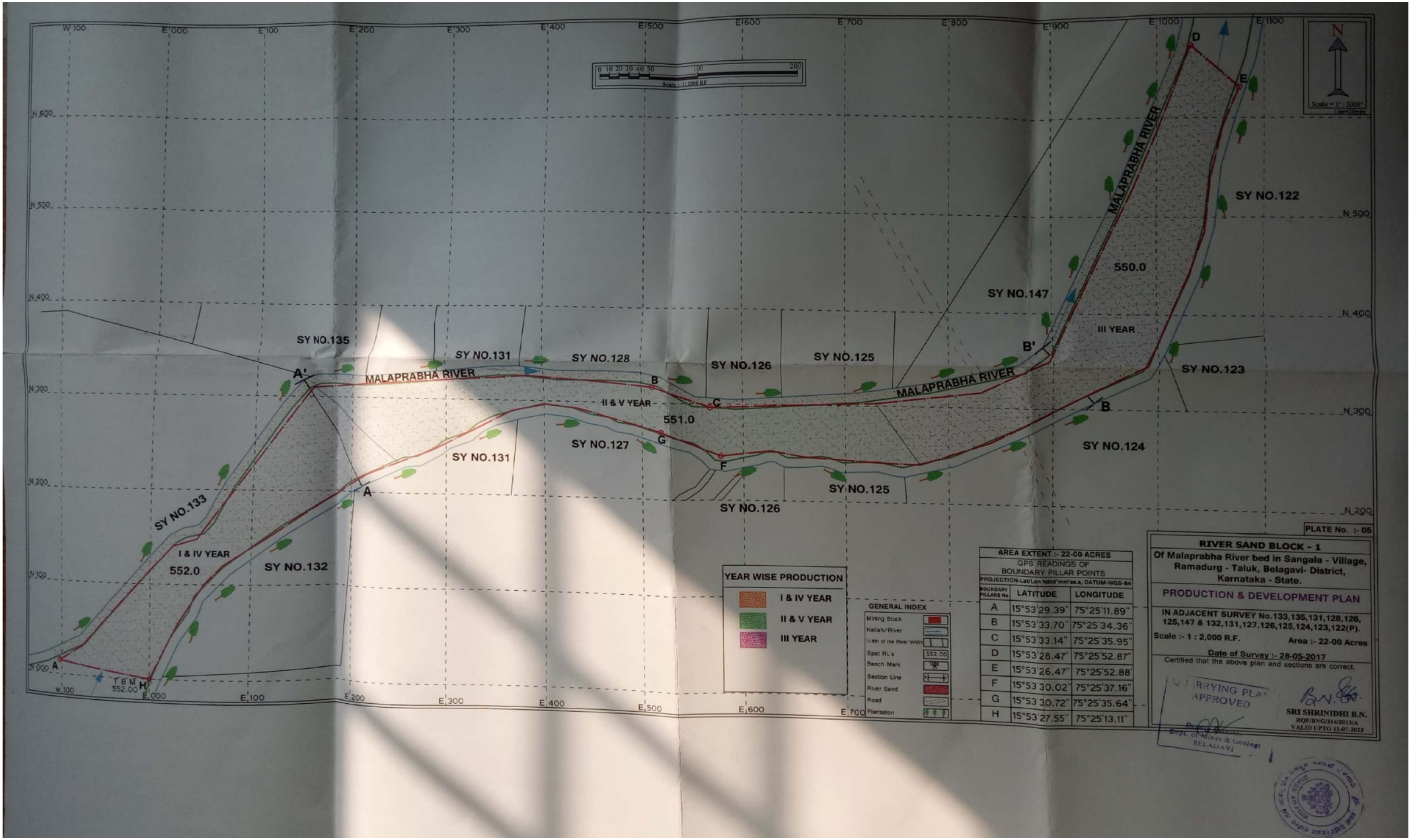
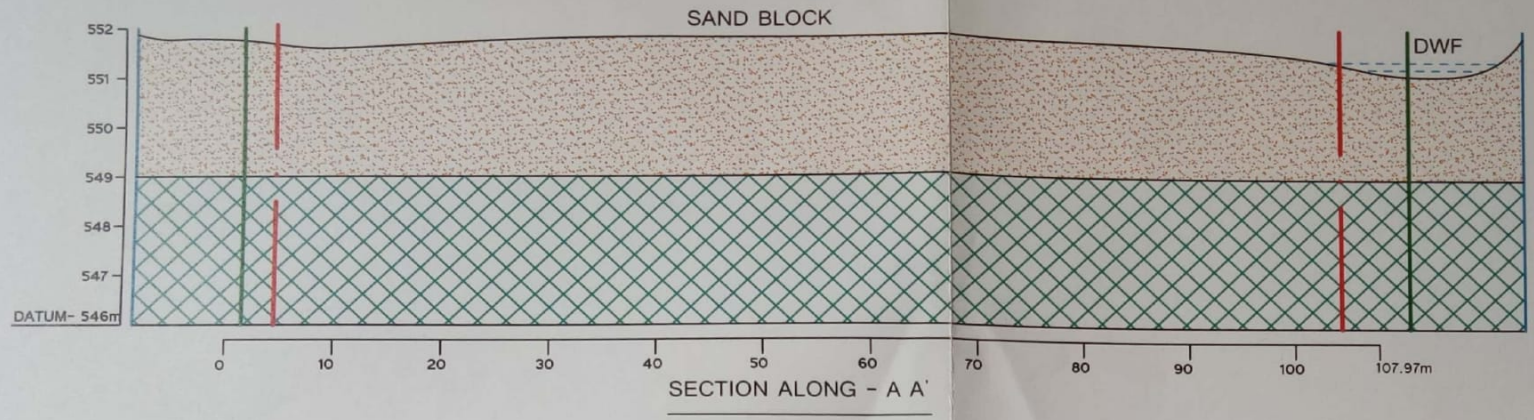
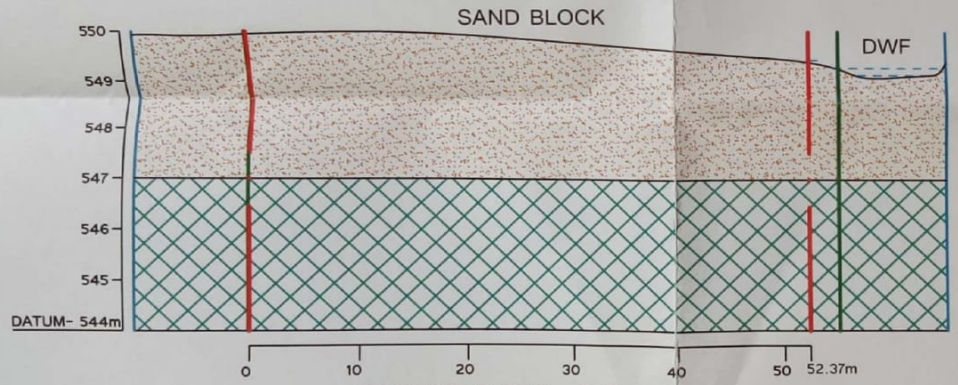


PLATE No. :- 04



SECTION ALONG - A A'



SECTION ALONG - B B'

GENERAL INDEX

- Porposed Mining Block
- River Boundary
- 1/8th of the River Width
- River Sand
- River Bed

VERTICAL SCALE - 1:100 R.F.

HORIZONTAL SCALE - 1:500 R.F.

RIVER SAND BLOCK-1

Of Malaprabha River bed in sangala - Village, Ramadurga - Taluk, Belagavi- District, Karnataka - State.

GEOLOGICAL CROSS SECTIONS

IN ADJACENT SURVEY No.133,135,131,128,126, 125,146 & 132,131,127,126,125,124,123,122(P).

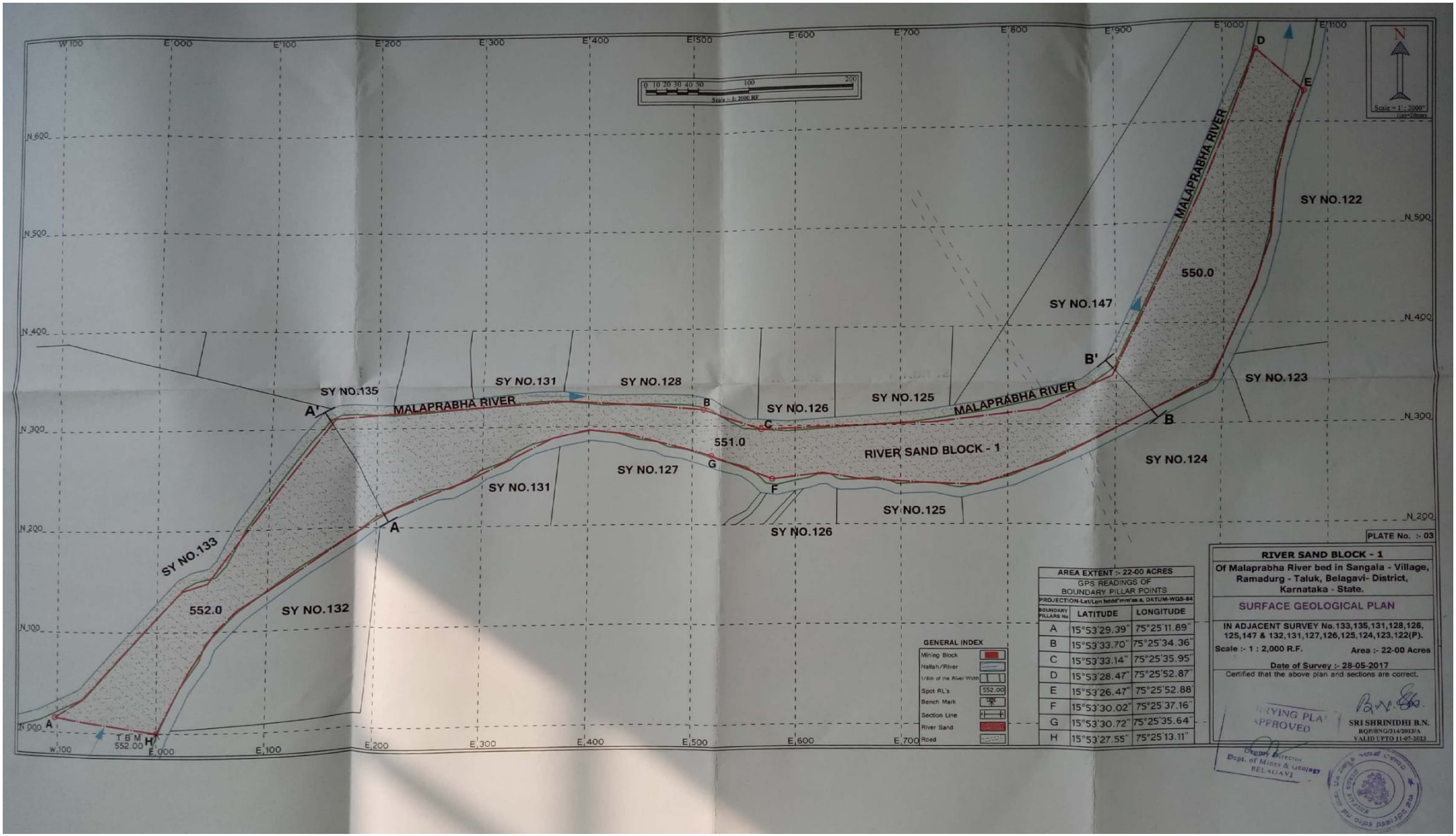
Area :- 22-00 Acres **Date of Survey :- 28-05-2017**

Certified that the above plan and sections are correct.

YING PLAN
PPROVED
Deputy Director
Dept. of Mines & Geology
BELAGAVI

B.N.

SHRI SHRINIDHI B.N.
RQP/BNG/314/2013/A
VALID UPTO 11-07-2023



AREA EXTENT :- 22-00 ACRES		
GPS READINGS OF BOUNDARY PILLAR POINTS		
PROJECTION-Lat/Lon hddd°mm'ss.s, DATUM-WGS-84		
BOUNDARY PILLARS No.	LATITUDE	LONGITUDE
A	15°53'29.39"	75°25'11.89"
B	15°53'33.70"	75°25'34.36"
C	15°53'33.14"	75°25'35.95"
D	15°53'28.47"	75°25'52.87"
E	15°53'26.47"	75°25'52.88"
F	15°53'30.02"	75°25'37.16"
G	15°53'30.72"	75°25'35.64"
H	15°53'27.55"	75°25'13.11"

PLATE No. :- 03

RIVER SAND BLOCK - 1

Of Malaprabha River bed in Sangala - Village, Ramadurg - Taluk, Belagavi- District, Karnataka - State.

SURFACE GEOLOGICAL PLAN

IN ADJACENT SURVEY No.133,135,131,128,126, 125,147 & 132,131,127,126,125,124,123,122(P).

Scale :- 1 : 2,000 R.F. Area :- 22-00 Acres

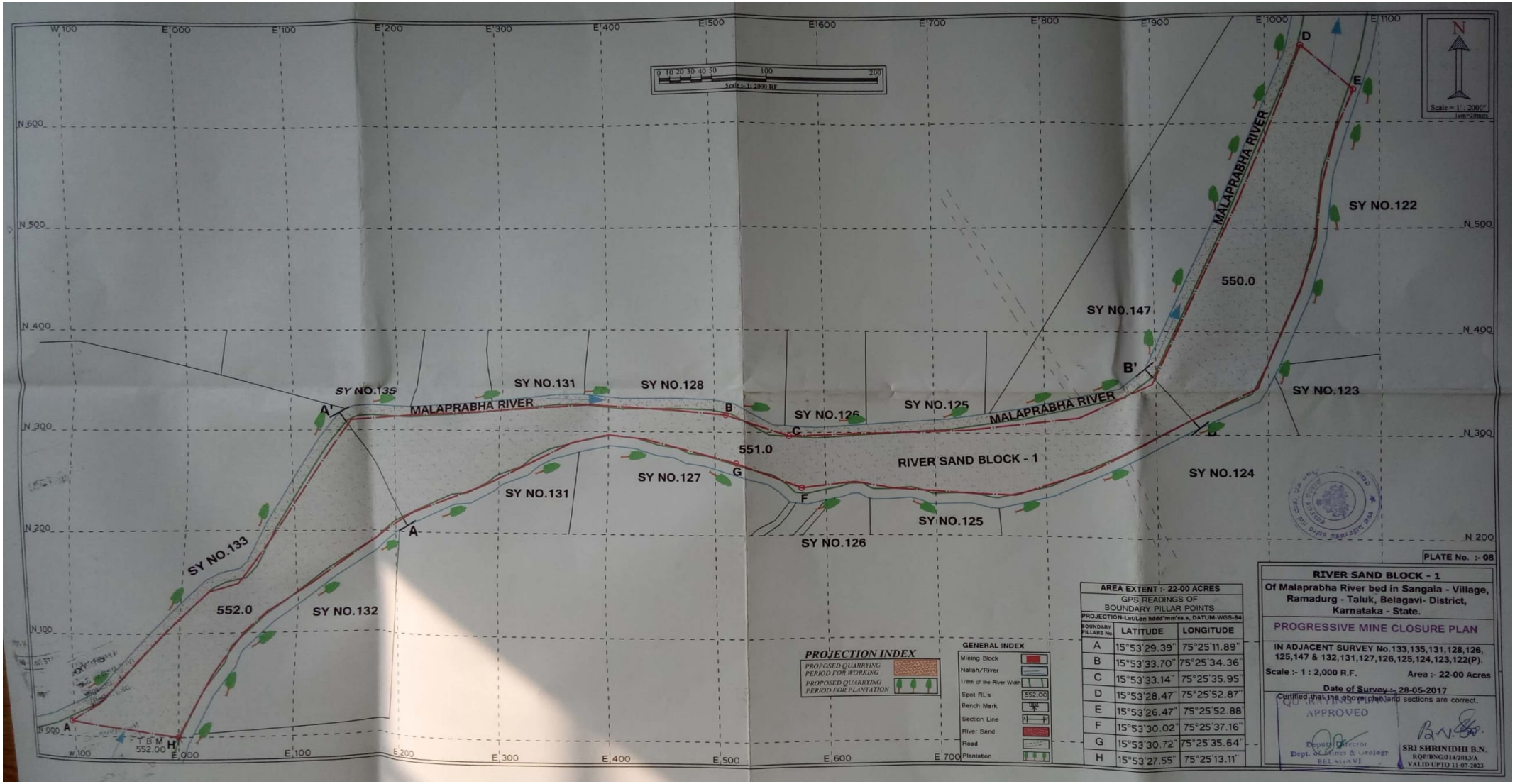
Date of Survey :- 28-05-2017

Certified that the above plan and sections are correct.

SRI SHRINIDHI B.N.
RQP/BNG/314/2013/A
VALID UPTO 11-07-2023

SURVEYING PLAN APPROVED

Deputy Director
Dept. of Mines & Geology
BELAGAVI



PROJECTION INDEX

PROPOSED QUARRYING PERIOD FOR WORKING

PROPOSED QUARRYING PERIOD FOR PLANTATION

GENERAL INDEX

Mining Block	
Nallah/River	
1/8th of the River Width	
Spot RL's	552.00
Bench Mark	TBM
Section Line	
River Sand	
Road	
Plantation	

AREA EXTENT :- 22-00 ACRES

GPS READINGS OF BOUNDARY PILLAR POINTS

PROJECTION-Lat/Lon hddd°mm'ss.s, DATUM-WGS-84

BOUNDARY PILLARS No.	LATITUDE	LONGITUDE
A	15°53'29.39"	75°25'11.89"
B	15°53'33.70"	75°25'34.36"
C	15°53'33.14"	75°25'35.95"
D	15°53'28.47"	75°25'52.87"
E	15°53'26.47"	75°25'52.88"
F	15°53'30.02"	75°25'37.16"
G	15°53'30.72"	75°25'35.64"
H	15°53'27.55"	75°25'13.11"

PLATE No. :- 08

RIVER SAND BLOCK - 1

Of Malaprabha River bed in Sangala - Village, Ramadurg - Taluk, Belagavi- District, Karnataka - State.

PROGRESSIVE MINE CLOSURE PLAN

IN ADJACENT SURVEY No.133,135,131,128,126, 125,147 & 132,131,127,126,125,124,123,122(P).

Scale :- 1 : 2,000 R.F. Area :- 22-00 Acres

Date of Survey :- 28-05-2017

Certified that the above plan and sections are correct.

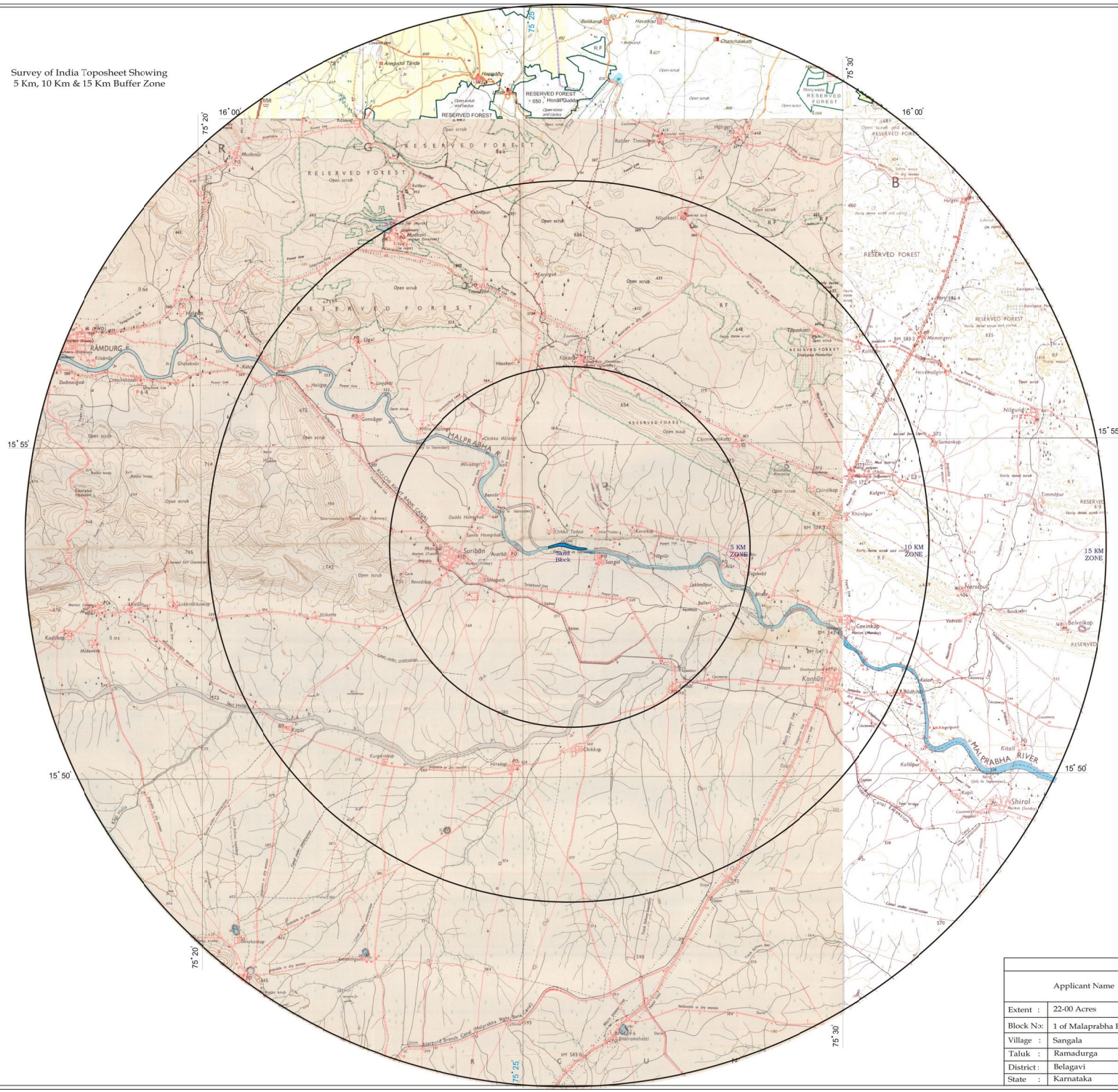
QUARRYING PLAN

APPROVED

Deputy Director
Dept. of Mines & Geology
BELAGAVI

SRI SHRINIDHI B.N.
RQP/BNG/314/2013/A
VALID UPTO 11-07-2023

Survey of India Toposheet Showing
5 Km, 10 Km & 15 Km Buffer Zone



N

भारतीय सर्वेक्षण विभाग | SURVEY OF INDIA

1st Edition 2009. Price : Rs. 50/-

CONVENTIONAL SYMBOLS

Scale - 1 : 50,000

TOPOSHEET NUMBERS

47 P/8	47 P/12
48 M/5	48 M/9

RIVER SAND MINING		
Applicant Name		Sri. Abhishek B Ilegar
Extent :	22-00 Acres	Applicant Signature
Block No:	1 of Malaprabha River	
Village :	Sangala	
Taluk :	Ramadurga	
District :	Belagavi	
State :	Karnataka	