HARYANA STATE POLLUTION CONTROL BOARD
Star Complex, Opp. General Hospital, Delhi Road, Sonipat
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No. HSPCB/SR/2023/1628 Dated : 17.10.2023

To

The Registrar,
National Green Tribunal,
New Delhi

Sub. Report in the matter of Original Application No. 581/2022: Vikas Kumar Applicant Versus State of Haryana Respondent, in compliance of Hon'ble National Green Tribunal Order dated 05.10.2023.

Ref. Hon'ble NGT order dated 05.10.2023.

In this connection, please find enclosed herewith the Report of Environment Clearance/Consent conditions in compliance of NGT order dated 05.10.2023 in the matter of O.A. No. 581/2022 titled as Vikas Kumar Versus State of Haryana. Present report is submitted through Haryana State Pollution Control Board for kind consideration of the Hon'ble Tribunal.

DA/ Copy of Report with all Annexures.

PARDEEP SINGH
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Regional Officer,
Sonipat Region.

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

OA No. 581 of 2022

IN THE MATTER OF:

Vikas Kumar

…Petitioner

Vs

State of Haryana and Others

…Respondents

REPLY ON BEHALF OF RESPONDENT No. 03 THROUGH SH. PARDEEP SINGH, REGIONAL OFFICER, HARYANA STATE POLLUTION CONTROL BOARD, SONIPAT IN COMPLAICNE OF ORDER DATED 05.10.2023.

INDEX

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Regional Officer,
HSPCB, Sonipat

Dated: 17.10.2023
Place: Sonipat

Report in the matter of Original Application No. 581/2022: Vikas Kumar Applicant Versus State of Haryana Respondent, in compliance of Hon'ble National Green Tribunal Order dated 05.10.2023.

1. Back ground and Directions of Hon'ble NGT:

The matter in OA No. 581/2022: Vikas Kumar Applicant Versus State of Haryana Respondent, is related to mining activity carried out by Sh. Pradeep Ahlawat in the name of M/s Yodha Mines& Minerals at Sonipat, Haryana.

In the above said matter, Hon'ble NGT vide order dated 05/10/2023 **(attached as Annexure-1)** directed as under:-

"4. Respondent no.3, HSPCB is directed to file additional report mentioning in detail status of compliance of respondent no. 5 M/s Yodha Mines & Minerals with EC/consent conditions.

6. Additional report by HSPCB and additional reply by respondent no. 5 be filed within 10 days by email at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF".

7. List for further consideration on 19.10.2023".

2. Compliance of the Orders of Hon'ble NGT:

It is pertinent to mention that in the another matter of M/S Yodha Mines and Minerals as OA no. 387/2023 titled as Ravinder Kumar Vs State of Haryana joint committee consisting of following officers has inspected the mining site on 06.10.2023 :

1. Sh. Amit Kumar, Sub Divisional Magistrate, Sonipat on behalf of DM, Sonipat.
2. Sh. Anil Kumar, Mining Officer, Sonipat.
3. Sh. Pardeep Singh, Regional Officer, HSPCB, Sonipat.

The compliance status of M/S Yodha Mines and Minerals verified by the committee regarding EC/Consent conditions is as under :

2.1 Compliance of the conditions of EC: - The respondent No. 5, M/s Yodha Mines& Minerals has obtained Environmental Clearance (EC) from Ministry of Environment & Forest and Climate Change (MoEF&CC), Government of India vide No. J-11015/112/2015-IA-II (M) dated 28.01.2016 **(attached as Annexure-2)**. The status of the compliance of the conditions of EC is as under:-

I. Specific conditions

Sr. No.	Conditions	Status of Compliance
1.	Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court of Haryana and any other Court of Law, if any, as may be applicable to this project	Mining unit is bound to comply with the orders / outcome of Hon'ble Supreme Court of India, Hon'ble High Court of Haryana and any other Court of Law from time to time.

2.	Environmental clearance is subject to obtaining clearance, under the Wildlife (Protection) Act, 1972 from the National Board of Wildlife, as applicable to the project.	None of the National Parks, WLSs Tiger Reserves, Eco sensitive Zones falls within10 km of the project site. Hence NOC from National Board of Wildlife is not applicable.
3.	No mining activities will be allowed in forest area, if any, for which the Forest Clearance is not available.	The said mining activity is of Sand Mining in the river bed of Yamuna. No forest land is involved in the riverbed sand mining project. However No Objection Certificate for the non-involvement of forest area has been obtained by the unit from the Divisional Forest Officer Sonipat, Haryana.
4.	The Project Proponent shall obtain Consent to Operate from the State Pollution Control Board, Haryana and effectively implement all the conditions stipulated therein.	Latest CTO has been obtained from the Board vide no. **HSPCB/Consent/ : 313100423SONCTO38992547** dated 05.08.2023which is valid upto 30.09.2024,copy of whichis attached as **Annexure-3**.
5.	Project Proponent shall implement the Disaster Management Plan as the mine lease area is located in Seismic Zone-II. Project Proponent shall appoint a Committee to have a check over any disaster to warn workers well before for the safety of the workers. Emergency helpline number will be displayed at all levels.	Mining activity remains closed during the mansoon period of 1st july to 15th septemper every year. However Disaster Management Plan for the project is already being submitted by the unit during the EC proposal and all precautionary measures have been taken at the site regarding safety as per Disaster Management Plan. The precautionary measures adopted are as follows. • Provision of emergency evacuation through vehicles/ boats. • Provisions of Water pumps for through back the water from lease to main stream. • Life jackets; ropes are available at mine site office. • Agreement with local hospitals for treatment of workers in case of emergency.
6.	Project Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and records maintained; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smokers, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. Recommendations of National Institute for Labour for ensuring good occupational environment for mine workers would also be adopted; All the old age people of the surrounding villages may be provided medical facilities.	The unit has executed an agreement with Rama Hospital, Bahalgarh, Sonipat and health check up of the workers is being done by Dr. Vijay Gupta, (MBBS, MD) at site on six monthly basis.
7.	Project Proponent shall appoint a Monitoring Committee to monitor the	Monitoring Committee to monitor the replenishment study, traffic management, levels of

	replenishment study, traffic management, levels of production, River Bank erosion and maintenance of Road etc.	production, River Bank erosion and maintenance of Road has been constituted by the unit. Recently replenishment was occurred in the mansoon season 2023 and Post mansoon study has been conducted by the consultant agency approved by MoEF&CC and report of the same is to be submitted by the end of October 2023.
8.	The number of trips of the trucks shall not exceed the estimated quantity of 480 trucks trips per day. Transport of minerals shall be done either by dedicated road or it should be ensured that the trucks/dumpers carrying the mineral should not be allowed to pass through the villages.	The number of trips of the trucks is less than 480 trucks trips per day as per the E-Ravaana record available with mining department. Dedicated roads avoiding villages have been provided for transportation of mineral materials as per the traffic plan and the same is being monitored by Traffic Police on regular basis.
9.	Project Proponent shall ensure that the road may not be damaged due to transportation of the mineral; and transport of minerals will be as per IRC Guidelines with respect to complying with traffic congestion and density.	Dedicated roads have been provided for transportation of mineral materials as per traffic plan and not leading to any traffic congestion in nearby areas.
10.	Implementation of Action Plan on the issues raised during the Public Hearing. The Proponent shall complete all the tasks as per the Action Plan submitted with the budgetary provisions during the Public Hearing.	Action plan regarding the issues raised during public hearing have to be implemented throughout the mining operation as per contract but no report has been submitted by the unit regarding budgetary provisions.
11.	Excavation will be carried out up to a maximum depth of 3 meters from surface of mineral deposit and not less than one meter from the water level of the River channel whichever is reached earlier.	The mining unit has been re-started its mining activity w.e.f 16th September after mansoon season and Presently excavation is being carried out only up to the depth of 1.2 meters.
12.	The pollution due to transportation load on the environment will be effectively controlled & water sprinkling will also be done regularly. Vehicles with PUCC only will be allowed to ply. The mineral transportation shall be carried out through covered trucks only and the vehicles carrying the mineral shall not be overloaded. Project should obtain 'PUC' certificate for all the vehicles from authorized pollution testing centre.	The trucks carrying the minerals are covered with tarpaulin and continuous water sprinkling is being done with the help of tankers regularly to prevent the dust re-suspension due to movement of trucks. PUC certificates of the vehicles used for mining activity are being checked by the traffic police from time to time. Photograph for the covered trucks and water sprinkling are attached as **Annexure -4**.
13.	Washing of all transport vehicle should be done inside the mining lease.	The unit is engaged in river bed sand mining and washing of the transport vehicles is not required. However construction of the washing facility in the river bed is also not allowed.
14.	Permanent pillars has to be constructed to demarcate width of extraction of ROM leaving 25% of River width from the bank with depth of 1.5m below the	Permanent Pillars with Latitude and Longitude are constructed to demark the mining site by the mining department as per the contract allotted to the mining unit.

	ground and 1.2 m above the ground to observe its stability.	
15.	An independent study be organised during peak activity, to understand how the actual compare with the carrying capacities and further decisions taken to maintain sustainability of this essential sand extraction and supply activity. Project Proponent shall ensure that the road may not be damaged due to transportation of the sand; and transport of minerals Will be as per IRC Guidelines with respect to complying with traffic congestion and density.	Dedicated roads have been provided for transportation of mineral materials as per traffic plan submitted during the EC proposal and not leading to any traffic congestion in nearby areas.
16.	The pollution due to transportation load on the environment shall be effectively controlled & water sprinkling be done regularly. Vehicles with PUCC only shall be allowed to ply. The mineral transportation shall be carried out through covered trucks only and the vehicles carrying the mineral shall not be overloaded. Project should obtain 'PUC' certificate for all the vehicles from authorized pollution testing centre.	The trucks carrying the minerals are covered with tarpaulin and effective water sprinkling is being done with the help of tankers regularly to prevent the dust re-suspension due to movement of trucks. Only valid PUC certified vehicles are allowed by the unit. Photograph for the covered trucks and water sprinkling are attached as **Annexure -4**.
17.	There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis in consultation with Regional Director, Central Groundwater Board and implementation of conservation measures to augment ground water resources in the area in consultation with Central Ground Water Board.	Mining is being carried out from dry river bed and no groundwater extraction is being done at the project site. However the augmentation of the ground water of the area is being done naturally during the mansoon season being river bed.
18.	Implementation of Environment Management Policy of the Company w.r.t. judicious use of Mineral resources for growth & development synchronizing mining & environment with prosperity.	Environment management policy has been submitted during EC proposal and the same is being implemented for effective control of the dust emissions at site.
19.	The Project Proponent shall also take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any, spotted in the study area.	The PP has adopted following measures for conservation & protection of flora/ fauna in the study area. • If any wild animal is noticed, will not be disturbed at all and forest department will be informed for the evacuation of animal to the nearby forest area. • Awareness programme among workers regarding importance of wildlife & flora/ fauna and encouraging them to protect the wild animals.
20.	The illumination and sound at night at project site disturb the villages in respect of both human and animal population,	The ambient noise levels are within the prescribed limits as per the noise monitoring report of NABL accredited Labs submitted with the six monthly

	Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. Project Proponent must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.	report. Mining work is being done during day time. Hence there is no contribution of the mining activity in the noise level of night hours.
21.	Main haulage road in the mine should be provided with permanent water sprinklers and other roads should be regularly wetted with water tankers fitted with sprinklers.	Regular sprinkling is being done at the main haulage road with the help of tankers for dust suppression.
22.	Transportation of the minerals by road passing through the village shall not be allowed. A 'bypass' road should be constructed (say, leaving a gap of at least 200 meters) for the purpose- of transportation of the minerals so that the impact of sound, dust and accidents could be mitigated. The Project Proponent shall bear the cost towards the widening and strengthening of existing public road network in case the same is proposed to be used for the Project. No road movement should be allowed on existing village road network without appropriately increasing the carrying capacity of such roads.	Bypass road has been provided at the site for transportation of minerals. The mineral transportation trucks are not passing through the village roads. Vehicles carrying mineral materials are covered properly during transportation.
23.	Likewise, Alteration or re-routing of foot paths, pagdandies, cart roads, and village infrastructure/public utilities or roads (for purposes of land acquisition for mining) shall be avoided to the extent possible and in case such acquisition Is Inevitable, alternative arrangements shall be made first and then only the area acquired. In these types of cases, Inspection Reports by site visit by experts may be insisted upon which should be done through reputed Institutes.	Dedicated bypass road has been provided at the project site for transportation of vehicles. Hence no rerouting or alteration of roads is required accordingly; Inspection Reports by experts is also not required.
24.	CSR activities by companies including the Mining Establishments has become mandatory up to 2% of their financial Turn-over, Socio Economic Development of the neighbourhood Habitats could be planned and executed by the Project Proponent more systematically based on the 'Need based door to door survey' by established Social Institutes / Workers.	CSR activities reported by the project proponent are as mentioned below: **In Village Jaipur Sonipat** 1. 700 no of 3-4 feets trees of species gulmohar, papal, neem and ashoka have been planted along the roads and community places in 2023 and the same has also been verified by the committee during the inspection on 06.10.2023.

	The report shall be submitted to the Ministry of Environment & Forest and its Regional Office located at Dehradun on six monthly basis.	2. Organize Health Check-ups of workers. **In Village Bakhtavarpur, Sonipat** 3. 500 no of 3-4 feets trees of species gulmohar, papal, neem and ashoka have been planted along the roads and community places in 2023 and the same has also been verified by the committee during the inspection on 06.10.2023. **In Village Dighal, Jhajjar** 1. Converted panchayat land in to beautiful park and community centre. 2. Converted abandoned panchayati land into park and playground for girl's school. 3. Renovated stadiums, built infrastructures, provided kits, scholarships and coaches for young players. 4. Organized health camps for community especially women and elderly. 5. 500 no of trees plantation was done along roads and community places in 2023. The above said activities have been reported by the unit during inspection before the joint committee and plantation was verified at village Jainpur. However, the detailed report mentioning CSR/CER activities undertaken is also to be filed by the mining unit before the Hon'ble Tribunal separately as per orders dated 05.10.2023 in the said matter
25.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care etc. The housing may be in the- form of temporary structures to be removed after the completion of the project.	The temporary Porta Cabins have been provided at site for the workers with facilities such as fuel for cooking, portable toilets, safe drinking water, medical health care first aid etc
26.	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment, Forest & Climate Change 5 years in advance of final mine closure for approval.	Mining Plan including Progressive Mine Closure Plan for Sand Mine (Minor Mineral) has been submitted and approved by the Department of Mining and Geology, Haryana vide no4410-4413 dated 04.08.2023. Attached as **Annexure -5.**

II. **Special Conditions:**

Sr. No.		Conditions	Remarks
1.	**Stake holder**	In the case of private land not owned by the lease holder an affidavit	Complied.

	Engagement	should be obtained regarding consent of the concerned operation land owner (s) for carrying out the mining operation.	
2		Stakeholder awareness and ability to raise concerns and getting it to be addressed.	The following condition is being complied with by the unit. Vocational trainings to workers have been provided.
3.		Implementation of Action Plan on the issues raised during the Public Hearing. The Proponent shall complete all the tasks as per the Action Plan submitted with the budgetary provisions during the Public Hearing.	Action plan regarding the issues raised during public hearing have to be implemented throughout the mining operation as per contract.
4		Having valid lease and all the permits is very much needs.	The mining unit is having valid lease and permit.
5		To establish a Monitoring Committee including Local Panchayat, to check on traffic due to transportation and submit an annual report on the same.	Monitoring of the traffic due to transportation is being done with the village panchayats by the mining unit.
6		The directions given by the Hon'ble Supreme Court on India vide order dated 27.02.2012 in Deepak Kumar case [SLP(c) Nos 19628-19629 of 2009] and order dated 05.08.2013 of the Hon'ble National Green Tribunal in application No. 171/2013 may be strictly followed.	Adequate distance from the river bank is being maintained during the mining work in compliance of the orders of Hon'ble National Green Tribunal.
7		All the provisions made and restrictions imposed as covered in the Minor Mineral Rule, shall be complied with, particularly regarding Environment Management Practices and its fund management and Payment of compensation to the land owners.	The provisions made and restrictions imposed as per Minor Mineral Rule are being compiled by the unit.
8		District level Survey Report should be prepared and area suitable for mining and area prohibited for mining be identified.	District level Survey is being conducted by the Mining & Geology department in this regard.
9.	**Sustainable Mining Practices**	The depth of mining in riverbed shall not exceed one meter of water level whichever is less provided that where the joint inspection committee certifies about excessive deposit or over accumulation of mineral in certain reaches requiring channelization, it can go up to 3 meters on defined reaches of the river.	Complied .Presently mining depth at site is about 1.2 meters from surface and not exceeding one meter of water level.
10.		No river sand mining be allowed in rainy season.	Mining was not allowed in the rainy season by District Administration Sonipat.

11.		To submit annual replenishment report certified by an authorized agency. In case the replenishment is lower than the approved rate of production, then the mining activity/production levels shall be decreased/stopped accordingly till the replenishment is completed.	The replenishment study of the post monsoon season is under process and the same will be submitted by the unit till the last week of October as reported by the project proponent. The production is being done as per the replenishment study done at site.
12.		Ultimate working depth shall be up to 3 m from Riverbed level and not less than one meter from the water level of the River channel whichever is reached earlier. In hilly terrain this depth be preferably to one meter.	Presently mining done is 1.2 meters which is less than 3 meters from river bed level not less than one meter from the water level of the River channel as per approved mining plan.
13.		In river flood plain mining a buffer of 3 meter to be left from the river bank for mining.	Complied
14.		In mining from agricultural field a buffer of 3 meter to be left from the adjacent field.	The project is an River Bed Mining and do not involve any mining from agriculture fields.
15.		Mining shall be done in layers of 1 meter depth to avoid ponding effect and after first layer is excavated, the process will be repeated for the next layers.	The project is an RBM project and do not involve mining from agriculture fields causing ponding effect.
16.		To maintain safety and stability of Riverbanks i.e. 3 meter or 10% of the width of the River whichever is more will be left intact as no mining zone.	To maintain safety and stability of Riverbanks i.e. 3 meter or 10% of the width of the River whichever is more has been left intact as no mining zone.
17.		No stream should be diverted for the purpose of sand mining. No natural water course and/ or water resources are obstructed due to mining operations.	The mining is being carried out from dry river bed and no natural water course or water resources are being obstructed due to mining operations.
18.		No blasting shall be resorted to in River mining and without permission at any other place.	This is a Sand (Minor Mineral) mining project. No blasting is being proposed and carried out in the river bed mining project.
19.		Depending upon the location, thickness of sand, deposition, agricultural land/Riverbed the method of mining may be manual, semi-mechanized or mechanized; however, manual method of mining shall be preferred over any other method.	Semi mechanized mining is being done at site as per the approved mining plan copy of approved mining plan is attached as **Annexure-4**.
20.	**Identification and Preparation of MiningSite**	Mining should be done only in area / stretch identified in the District Level Survey Report suitable for mining and socertified by the Sub-Divisional Level Committee after site visit.	Mining is being done as per mining plan. Mining plan of the project has been attached as **Annexure -4**.
21.		Mining should begin only after pucca pillar marking the boundary of lease area is erected at the cost of the	The pucca pillar marking of the boundary of lease area has been erected with geo coordinates at the

		leaseholder after certification by the mining official and its geo coordinates are made available to the District Level Committee.	cost of lease holder and also verified by the Mining Officer, Sonipat.
22.		The top soil in case of surface land mining shall be stored temporarily in an earmarked site and concurrently used for land reclamation.	As it is a river bed mining project, no top soil is present in the lease area.
23.	**Monitoring the Mining of Mineral and its Transportation**	The EC holder shall keep a correct account of quantity of mineral mined out, dispatched from the mine, mode of transport, registration number of vehicle, person in-charge of vehicle and mine plan. This should be produced before officers of Central Government and State for inspection.	Department of Mines and Geology, Haryana has implemented E-Ravaana system. Every vehicle transporting minerals will be dispatched from the mining site after generation of its E-Ravaana and the record of the same is on the portal of the department.
24.		For each mining lease site the access should be controlled in a way that vehicles carrying mineral from that area are tracked and accounted for.	The vehicles carrying minerals engaged by the unit are GPS enabled and shall carry E-Ravaana. All the records of the same is with the Mining Department on their E-Ravaana Portal.
25.		The State/ District Level Environment Committee should use technology like Bar Coding, Information and Communications Technology (ICT), Web based and ICT enabled services, mobile SMS App etc. to account for weight of mineral being taken out of the lease area and the number of trucks moving out with the mineral.	The vehicle carrying minerals can only be dispatched with the E-Ravaana prepared from the online portal of Mine and Geology Department and E-Ravaana if having QR Code the same is being verified by the Traffic police/RTA using scanner.
26.		There should be regular monitoring of the mining activities in the State to ensure effective compliance of stipulated EC conditions and of the provisions under the Minor Mineral Concessions Rules framed by the State Government.	Monitoring of the mining activities is being done by HSPCB and Mining Department.
27.	**Noise Management**	Noise arising out of mining and processing shall be abated and controlled at source to keep within permissible limits.	Noise control measures are being taken on site. Machineries and vehicles for transport are being maintained at regular intervals to keep the noise level within permissible limits.
28.		Restricted working hours. Sand mining operation has to be carried out between 6 am to 7 pm.	No mining activity is being done in the restricted hours.
29.	**Air Pollution and Dust Management**	The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly.	Pollution control measures have been adopted at the site. Water sprinkling is being done on regular basis to suppress the dust emission from project site. PUC certificates of the vehicles used for mining activity are being checked by the traffic police from time to time Vehicles

			used for transportation of minerals are being covered with tarpaulin sheet covers.
30.		Air Pollution due to dust, exhaust emission or fumes during mining and processing phase should be controlled and kept in permissible limits specified under environmental laws.	Pollution control measures have been adopted at the site. Water sprinkling is being done on regular basis to suppress the dust emission from project site. PUC certificates of the vehicles used for mining activity are being checked by the traffic police from time to time Vehicles used for transportation of minerals are being covered with tarpaulin sheet covers.
31.		The mineral transportation shall be carried out through covered trucks only and the vehicles carrying the mineral shall not be overloaded. Wheel washing facility should be installed and used.	Vehicles used for transportation of minerals are being covered with tarpaulin sheet covers.
32.	**Management of Visual Impact**	The mining operations are to be done in a systematic manner so that the operations shall create a major visual impact on the site.	Mining activities are being carried as per the approved mining plan. Mining plan of the project has been attached as **Annexure -5.**
33.	**Bio-Diversity Protection**	Restoration of flora affected by mining should be done immediately. Twice the number of trees destroyed by mining to be planted preferably of indigenous species. Each EC holder should plant and maintain for lease period at least 5 trees per hectare in area near lease.	The said mining is being carried out in the river bed. Plantation of 1500 trees of various species is also been done by the unit in the Village Jainpur and Bakhtavarpur which are nearest to the lease area.
34.		No mining lease shall be granted in the forest area without forest clearance in accordance with the provisions of the Forest Conservation Act, 1.980 and the rules made thereunder.	The said mining activity is of Sand Mining in the river bed of Yamuna. No forest land is involved in the riverbed sand mining project. However No Objection Certificate for the non-involvement of forest area has been obtained by the unit from the Divisional Forest Officer Sonipat, Haryana.
35.		Protection of turtle and bird habitats shall be ensured.	No such habitats have been found at the project area. If any turtle and bird habitat will be found then Forest Department will be intimated immediately and protection for the same will be ensured.
36.		No felling of tree near quarry is allowed. For mining lease within 10km of the National Park / Sanctuary or in Eco-Sensitive Zone of the Protected Area, recommendation of Standing Committee of National Board of Wild Life (NBWL) have to be obtained as per the Hon'ble Supreme Court order	No tree-felling activity has been done near the river bed mine, and no National Parks, Wildlife Sanctuaries, Eco Sensitive Zone falls within 10km radius of the mine boundary. Hence recommendation of NBWL is not applicable.

		in LA. No. 460 of 2004.	
37.		Spring sources should not be affected due to mining activities. Necessary Protection measures are to be incorporated.	No Spring source have been found during the mining so far.
38		Removal, stacking and utilization of top soil in mining are should be ensured. Where top soil cannot be used concurrently, it shall be stored separately for future use keeping in view that the bacterial organism should not die and should be spread nearby area.	It is a river bed mining project, no top soil is being present in the lease area.
39.		The EC should stipulate conditions for adequate steps to check soil erosion and control debris flow etc. by constructing engineering structures.	The said condition is not applicable as it is a river bed mining project, hence engineering structures are not constructed at site.
40.	**Management of Instability and Erosion**	Use of oversize material to control erosion and movement of sediments.	The soil erosion and movement of sediments of embankment of River are being controlled by placing oversized pebbles by Irrigation Department. The embankment of the river is not allowed to use for carrying mining minerals.
41.		No overhangs shall be allowed to be formed due to mining and mining shall not be allowed in area where subsidence of rocks is likely to occur due to steep angle of slope.	The said condition is not applicable. As it is a river bed mining project. Mining plan of the project has been attached as **Annexure -5.**
42.		No extraction of stone / boulder / sand in landslide prone areas.	The said condition is not applicable s it is a river bed mining project. Mining plan of the project has been attached as **Annexure -5.**
43.		Controlled clearance of riparian vegetation to be undertaken.	The project is located in the riverbed of Yamuna where no riparian vegetation was found.
44.	**Waste Management**	Site clearance and tidiness is very much needed to have less visual impact of mining.	Cleanliness is being maintained at the site properly by the mining unit.
45.		Dumping of waste shall be done in earmarked places as approved in Mining Plan.	There is only solid waste generation from the workers living in the mining area and the same is being collected in dustbins .
46.		Rubbish burial shall not be done in the Rivers.	There is no burial of waste in the Rivers.
47.	**Pollution Prevention**	The EC holder shall take all possible precautions for the protection of environment and control of pollution.	Pollution control measures have been adopted at the site. Water sprinkling is being done on regular basis to suppress the dust emission from project site. PUC certified vehicles are being allowed to enter the site and the same is being verified by police from time to time.

			Vehicles used for transportation of minerals are being covered with tarpaulin sheet covers.
48.		Effluent discharge should be kept to the minimum and it should meet the standards prescribed.	It is a river bed sand mining project and, no effluent is being discharged from the mining site.
49.	**Protection ofInfrastructure**	Mining shall not be undertaken in a mining lease located in 200-500 meter of bridge, 200 meter upstream and downstream of water supply / irrigation scheme, 100 meters from the edge of National Highway and railway line, 50 meters from a reservoir, canal or building, 25 meter from the edge of State Highway and 10 meters from the edge of other roads except on special exemption by the Sub-Divisional level Joint Inspection Committee.	Mining is being carried out in the river bed and the distances of the mining site is more than 200-500 meter of bridge, 200 meter upstream and downstream of water supply / irrigation scheme, 100 meters from the edge of National Highway and railway line, 50 meters from a reservoir, canal or building, 25 meter from the edge of State Highway and 10 meters from the edge of other roads.
50.		For carrying out mining in proximity to any bridge or embankment, appropriate safety zone (not less than 200 meters) should be worked out on case to case basis, taking into account the structural parameters, location aspects and flow rate, anti no mining should be carried out in the safety zone so worked out.	Mining activities are being carried out only in the mine lease area as per the mining plan. The mining site of the unit is approximate 1 KM from the embankment of the river as per mining plan
51.		Mining activities shall not be done for mine lease where mining can cause danger to site of flood protection works, places of cultural, religious, historical, and archeological importance.	Mining is not being done where mining can cause danger to site of flood protection works, places of cultural, religious, historical, and archeological importance.
52.	**Enhancement of RoadSafety**	Vehicles used for transportation of sand are to be permitted only with fitness and PUC Certificates.	PUC certified vehicles are being allowed and the PUC of the vehicle carrying minerals are checked by police from time to time.
53.		Junction at takeoff point of approach road with main road be properly developed with proper width and geometry required for safe movement of traffic by concession holder at his own cost.	Junctions with main road are maintained by the Mining lease holder.
54.		Project Proponent shall ensure that the road may not be damaged due to transportation of the mineral; and transport of minerals will be as per IRC Guidelines with respect to complying with traffic congestion and density.	Roads are being developed as per traffic plan submitted during the EC proposal. It has been ensured that the road is not being damaged due to transportation of mineral. Mineral transportation is being carried out as per traffic plan which avoids any congestion of traffic.
55.		No stacking allowed on road side along National Highways.	Stacking is not allowed on road side along National Highways. Regular

			surveillance is being done by traffic police with RTA
56.	**Closure andReclamation of Mined Out Area**	The Project Proponent shall undertake phased restoration, reclamation and rehabilitation of land affected by mining and completes this work before abandonment of mine.	It is being done naturally during non-mining period (monsoon) being river sand mining activity.
57.		Restoration, reclamation and rehabilitation in cluster should be done systematically and jointly by each EC holder In that cluster. This should be appropriately reflected as EC condition in each EC in cluster.	It is a single mine and cluster is not applicable.
58.		Site specific plan with eco-restoration should be in place and implemented.	Eco restoration of mined out site are reclaimed naturally during monsoon period.
59.	**HealthandSafety**	Health and safety of workers should be taken care of.	Health and safety aspects of the workers are being taken care of. First aid kit has been provided at the site. Preventive measures are being taken for the occupational health & safety of workers. Regular check up of the workers is being done by the occupational health specialist Dr. Vijay Gupta of Rama Hospital, Bahalgarh Sonipat appointed by the Mining unit.
60.		Transport of mineral will not be done through villages / habitations.	Transport of mineral is not being done through villages/habitations. Dedicated route as per traffic plan for transportation is being followed avoiding the villages and habitation.
61.		The Project Proponent shall made arrangement for drinking water, first aid facility (along/with species specific anti-venom provisioning) in case of emergency for the workers.	Drinking water facility has been provided for the workers. First aid kit has been provided at the site. Rama Hospital, Bahalgarh, Sonipat has been engaged for provided various health care facilities and routine check-up of all the workers is being done at site.
62.		Project Proponent shall implement the Disaster Management Plan if the mine lease area is located in Seismic Zone-IV. Project, Proponent shall appoint a Committee to have a check over any disaster to warn workers well before for the safety of the workers. Emergency helpline number will be displayed at all levels.	The project site falls under seismic zone II. Disaster management plan for the project has already been submitted during the proposal of EIA. Emergency helpline number is being displayed and trainings have been provided to the workers regarding the same.
63.		Project Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and records maintained; also, Occupational health	Preventive measures are being taken for the occupational health & safety of workers. The unit has executed an agreement with Rama Hospital, Bahalgarh, Sonipat and health check up of the workers is being done by Dr. Vijay

		check-ups for workers having some aliments like BP, diabetes, habitual smokers, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. Recommendations of National Institute for Labour for ensuring good occupational environment for mine workers would also be adopted.	Gupta, (MBBS, MD) at site on six monthly basis.
64.	**MonitoringtheImpactofMining**	The Project Proponent shall report monitoring data on replenishment,Traffic management, levels of production, River Bank erosion and maintenance of Road etc.	The monitoring data on replenishment, Traffic management, levels of production, River Bank erosion and maintenance of Road etc. is being provided by the unit in six monthly compliance reports from time to time.
65.	**Mineral Conservation**	Use of alternate material such as M-sand in place of natural River sand shall be encouraged in order to reduce stress on natural eco-system.	Not applicable on the Mining unit

III. **Procedure for Monitoring of Sand Mining**

Sr. No.	Conditions	Reply
1.	Project Proponent must ensure that the security features of Transport Permission viz. (a) Printed on Indian Bank Association (IBA) approved Magnetic Ink Character Recognition Code (MICR) paper; (c) Unique Barcode; (d) Unique Quick Response Code (QR); (e) Fugitive Ink Background; (f) Invisible Ink Mark; (g) Void Pantograph; (h) Watermark.	The transportation of the mineral is being done after preparation of E-Ravaana from the portal of Mines and Geology Department Haryana having QR-Code to scan and verify the same.
2.	Project Proponent must ensure that the CCTV camera, Personal Computer (PC), Internet Connection, Power Back up, access control of mine lease site; and arrangement for weight or approximation of weight of mined out mineral on basis of volume of the trailer of vehicle used at mine lease site are available.	CCTV cameras have been installed at the site for security purposes. Mineral mined out and transported outside the mine lease site is being weighed regularly
3.	Project Proponent must ensure the Scanning of Transport Permit or Receipt and Uploading on Server.	All the transportation is being done after generation of E-rawana and the same is being verified by the District Mining Officers /RTA from time to time.
4.	The State Mines and Geology Department should print the Transport Permits / Receipt with security features enumerated at Paragraph (i) above and issue them to the mine lease holder	Complied by the State Mines and Geology Department, Haryana

	through the District Collector. Once these Transport Permits or Receipts are issued, they would be uploaded on the server against that mine lease area. Each receipt should be preferably with pre-fixed quantity, so the total quantity gets determined for the receipts issued. When the Transport Permit or Receipt barcode gets scanned and invoice is generated, that particular barcode gets used and its validity time is recorded on the server. So all the details of transporting of mined out material can be captured on the server and the Transport Permit or Receipt cannot be reused.	
5.	The staff deployed for the purpose of checking of vehicles carrying mined mineral should be in a position to check the validity of Transport Permit or Receipt by scanning them using website, Android Application and SMS.	The staff deployed for the checking of vehicle carrying mined minerals is well equiped to check the validity of transport permit by scanning them using android application and SMS.
6.	In case the Vehicle breakdown, the validity of Transport Permit or Receipt shall be extended by sending SMS by driver in specific format to report breakdown of vehicle. The server will register this information and register the breakdown. The State can also establish a call centre, which can register breakdowns of such vehicles and extend the validity period. The subsequent restart of the vehicle also should be similarly reported to the server / call centre.	This is being complied by the Mines and Geology Department Haryana through E-Ravaana Portal . The number to be used for the SMS in case of vehicle breakdown is +91-728880664.
7.	The route of vehicle from source to destination shall be tracked through the system using check points, Radio-frequency identification (RFID) Tags, and Global Positioning System (GPS) tracking.	Vehicles allowed for transporting the mined minerals are GPS enabled and being tracked by Mining Department.
8.	The system shall enable the Authorities to develop periodic report on different parameters like daily lifting report, vehicle log/ history, lifting against allocation, and total lifting. The system can be used to generate auto mails/SMS. This will enable the District Collector / Magistrate to get all the relevant details and will enable the authority to block the scanning facility	The vehicle carrying mined minerals can only be dispatched after online generation of E-Ravaana from portal of Mine and Geology Department Haryana and the data of the same is being synchronized on the portal of Mining Department.

	of any site found to be indulged in irregularity. Whenever any authority intercepts any vehicle transporting illegal sand, it shall get registered on the server and shall be mandatory for the officer to fill in the report on action taken. Every Intercepted vehicle should be tracked.	

IV. General conditions

Sr. No.	Conditions	Remarks
1.	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment, Forest & Climate Change.	There is no change in mining technology. Mining is being done as per mining plan. Approved Mining plan of the project has been attached as **Annexure -5.**
2.	No change in the calendar plan including excavation, quantum of mineral and waste should be made.	There is no change in the calendar plan. Quantum of mineral excavated will be as per mining plan.
3.	The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and ground water for the project.	No ground water utilization is being done at the project site. Water procured from tankers is being used for drinking and sprinkling purpose.
4.	There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis In consultation with Regional Director, Central Groundwater Board and implementation of conservation measures to augment ground water resources in the area in consultation with Central Ground Water Board.	Mining is being carried out from dry river bed and no groundwater extraction is being done at the project site. Further be planning, developing and implementing facility of rainwater harvesting measures on long term basis in consultation with Regional Director, Central Groundwater Board and implementation of conservation measures to augment ground water resources in the area in consultation with Central Ground Water Board can be undertaken in CSR/CER activities by the unit.
5.	Regular monitoring of ground water table to be carried out at the upstream and depth of water available in the dug well is to be measured. Monitoring to be done by establishing a network of existing wells and constructing new piezometers.	Regular monitoring of ground water of near by areas is being done by the unit and reports are being submitted with the six monthly reports of EC.
6.	Monitoring of Ambient Air Quality to be carried out based on the Notification, as amended from time to time by the Central Pollution Control Board. Water sprinkling should be increased at places loading and unloading points & transfer point to reduce fugitive emissions.	Regular monitoring of the Ambient Air Quality is being done at site and adequate Water sprinkling is being done at the places of loading and unloading points & transfer point to reduce fugitive emissions.
7.	The upliftment of scheduled caste/scheduled tribe population, specific programmes have been taken in to consideration specially with respect to education, health care, livelihood generation, infrastructure development	Noted for compliance.

	promotion of sports & culture for SC/ST population and that these will be intensified in future.	
8.	The top soil, if any, shall temporarily be store at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time. The maximum height of the dumps shall not exceed 8m and width 20 m and overall slope of the dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled and afforested. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest & Climate Change and its Regional Office located at Chandigarh on six monthly basis.	This is a river bed mining project. So, no top soil was present before the start of the mining. Hence, no conservation of top soil is required.
9.	Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river anti other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. The drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and over burden dumps to prevent run off of water and flow of sediments directly into the river and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.	This is river bed sand mining project where no overburden is found catch drains; siltation ponds; check dams cannot be constructed within lease area; which is river bed.
10.	Plantation shall be raised in a 20m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, around	Not applicable; the project is of river bed sand mining, where backfilling is not proposed rather it is natural in the river bed. The

	water body, along the roads etc. by planting the native species in consultation with the local DFO/ Agriculture Department. The density of the trees should be around 2500 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.	plantation has been carried out outside the lease area till date.
11.	Dimension of the retaining wall at the toe of over burden dumps and OB benches within the mine to check run-off and siltation shall be based on the rain fall data.	It is a river bed sand mining project and there is no over burden dump.
12.	Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM, and PM, a such as haul road, loading and unloading point and transfer points. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	Regular sprinkling is being done to suppress the dust emission and necessary measures have been taken to control the fugitive dust emission. Further, ambient air quality is being conducted from time to time, as per the report submitted by the unit from NABL labs ,AAQ is within prescribed limits.
13.	Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintained. Regular monitoring of water quality upstream anti downstream of water bodies shall be carried out and record of monitoring data should be maintained and submitted to the Ministry of Environment, Forest & Climate Change, its Regional Office, Chandigarh, Central Groundwater Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.	There is no springs and perennial nallahs flowing in and around the mine lease.
14.	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year - pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to Ministry of Environment, Forest & Climate Change and its Regional Office, Chandigarh, Central Ground Water Authority and Regional Director, Central Ground Water Board.	Regular monitoring of the ground water quality is being carried out and the records are being maintained. Six monthly compliance reports are being submitted by the unit to Ministry of Environment, Forest & Climate Change, its Regional Office, Chandigarh, State Pollution Control Board, Haryana and State environment impact assessment authority, Haryana.
15.	The critical parameters such as PM_{10}, (size less than 10 micro meter), $PM_{2.5}$ (size less than 2.5 micro meter), NO_x in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be	The ambient air quality is being monitored regularly and the parameters such as PM 2.5, PM 10 etc. are within the prescribed limits. The project is of riverbed sand mining and no blasting is involved in it, hence measurement of peak particle velocity is not applicable.

	monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on display board at the project site at a suitable location near the main gate of the Company in public domain. The circular No. J-20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest & Climate Change, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance.	Further there is also no waste water discharge from the mining activity area.
16.	Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for PM_{10}, $PM_{2.5}$, SO_2, & NOx monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board. Data on ambient air quality should be regularly submitted o the Ministry including its Regional office located at Chandigarh and the State Pollution Control Board / Central Pollution Control Board once In six months.	The ambient air quality is being monitored regularly with the help of the NABL accredited Lab by installing four manual monitoring stations and the parameters such as PM 2.5, PM 10 etc. are within the prescribed limits. Six monthly compliance reports are being submitted to Ministry of Environment, Forest & Climate Change, its Regional Office, Chandigarh, State Pollution Control Board, Haryana and State environment impact assessment authority, Haryana.
17.	Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.	Water sprinkling is being done on regular basis to suppress the dust emission from project site. PUC certified vehicles are being allowed to enter the site and the same is being verified by police from time to time. Vehicles used for transportation of minerals are being covered with tarpaulin sheet covers.
18.	Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.	Necessary measures have been taken to control the noise level in the work environment and Ear plugs and muffs are being provided to the workers.
19.	Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.	There is no workshop at mining site.
20.	Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.	Safety masks have been provided to the workers. Trainings are being provided to the workers on health & safety aspects. Regular water sprinkling is also being done to prevent dust emission from the project site.

21.	Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	Preventive measures are being taken for the occupational health & safety of workers. Hospital has been engaged for provided various health care facilities and routine check-up of all the workers at site. Health surveillance records of workers is maintained at site.
22.	A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.	Environmental management cell has been constituted with suitable qualified personnel under the control of MD of the mining company.
23.	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office located at Chandigarh.	The funds earmarked for environmental protection measures have been kept in separate account and will not be diverted for other purpose. Year wise expenditure is not been reported by the company.
24.	The project authorities should inform to the Regional Office located at Chandigarh regarding date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.	The date of financial closure is being informed to the Regional Office located at Chandigarh.
25.	The Regional Office of this Ministry located at Chandigarh shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.	Full cooperation is being given to the visiting officials of the Ministry of Environment, Forest & Climate Change.
26.	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment, Forest &Climate Change, its Regional Office, Chandigarh, Central Pollution Control Board and State Pollution Control Board.	Six monthly compliance reports are being submitted regularly and Latest Report was submitted on 13.10.2023.
27.	A copy of clearance letter will be marked to concerned Panchayat/local NGO, if any, from whom suggestion / representation has been received while processing the proposal.	Copy of EC has been provided to village panchayats and the same has also been sent to various public dealing offices of the District.
28.	State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.	The copy of the environmental clearance letter had been displated at the Regional office, District Industry Centre and Collector's office/ Tehsildar's Office of District Sonipat
29.	The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality	The same has already been advertised in newspapers.

	concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment, Forest & Climate Change at http://envfor.nic.in and a copy of the same should be forwarded to the Regional Office of this Ministry located Chandigarh.	

2.2 Compliance of the conditions of CTO :- Unit has obtained Consent to Operate from the HSPCB vide No. HSPCB/Consent/: 313100423SONCTO38992547 dated 05.08.2023 which is valid upto 30.09.2024. Compliance of the conditions of CTO is as under:-

I. Terms and conditions

Sr. No.	CTO Conditions	Compliance Status
1	The applicants shall maintain good house keeping both within factory and in the premises. All hose pipelines values, storage tanks etc. shall be leak proof. In plant allowable pollutants levels, if specified by State Board should be met strictly.	This is a river bed mining project. Required measures such as septic tank with soak pits and regular sprinkling for dust suppression are being taken to maintain good housekeeping.
2	The applicant/company shall comply with and carry out directive/orders issued by the Board in this consent order at all subsequent times without negligence of his /its part. The applicant/company shall be liable for such legal action against him as per provision of the law/act in case of violation of any order/directives. Issued at any time and or non compliance of the terms and conditions of his consent order.	Complied
3	The applicant shall make an application for grant of consent at least 90 days before the date of expiry of this consent.	The renewal of consent to operate will be applied at least 90 days before the date of expiry of this consent.
4	Necessary fee as prescribed for obtaining renewal consent shall be paid by the applicant alongwith the consent application.	Presently CTO of the unit is valid up to 30.09.2024 and all the fees have been paid to the board.
5	If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above required variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard vary all or such	Noted by the unit for compliance.

	condition and there upon the applicant shall be bound to comply with the conditions so varied.	
6	The industry shall provide adequate arrangement for fighting the accidental leakages, discharge of any pollutants gas/liquids from the vessels, mechanical equipment etc. which are likely to cause environment pollution.	The project is a river bed mining project. Adequate arrangements have been made for Fighting the accidents.
7	The industry shall comply noise pollution (Regulation and control) Rules, 2000.	Adequate measures have been taken by the unit and complying with the noise pollution (Regulation and control) Rules, 2000.
8	The industry shall comply all the direction/Rules/Instructions as may be issued by the MOEF/CPCB/HSPCB from time to time.	Noted by the unit for compliance.
9	The industry shall ensure that various characteristics of the effluents remain within the tolerance limits as specified in EPA Standard and as amended from time to time and at no time the concentration of any characteristics should exceed these limits for discharge.	This is a river bed mining project. There is not generation of the industrial effluent and domestic effluent generated from toilets provided at the site is being collected in provided septic tanks with soak pits which are being cleaned regularly.
10	The industry would immediately submit the revised application to the Board in the event of any change in the raw material in process, mode of treatment/discharge of effluent. In case of change of process at any stage during the consent period, the industry shall submit fresh consent application alongwith the consent to operate fee, if found due, which may be on any account and that shall be paid by the industry and the industry would immediately submit the 1. Sand 5333 Metric Tonnes/day Capacity of boiler 1. NA Ton/hr Type of Furnace 1. NA Type of Fuel 1. NA Raw Material Details Sand mining 5333 Metric Tonnes/Day consent application to the Board in the event of any change during the year in the raw material, quantity, quality of the effluent, mode of discharge, treatment facilities etc.	Not applicable.
11	The officer/official of the Board shall reserve the right to access for the inspection of the industry in connection with the various process and the treatment facilities. The consent to operate is subject to review by the Board at any time.	Noted and agreed by the unit.

12	Permissible limits for any pollutants mentioned in the consent to operate order should not exceed the concentration permitted in the effluent by the Board.	This is a river bed mining project. There is not generation of the industrial effluent and domestic effluent generated from toilets provided at the site is being collected in provided septic tanks with soak pits which are being cleaned regularly.
13	The industry shall pay the balance fee, in case it is found due from the industry at any time later on	Noted and agreed by the unit. However presently there is no fees balance to be paid by the unit.
14	If the industry fails to adhere to any of the conditions of this consent to operate order, the consent to operate so granted shall automatically lapse.	Noted and agreed by the unit.
15	If the industry is closed temporarily at its own, they shall inform the Board and obtain permission before restart of the unit.	Noted and agreed by the unit.
16	The industry shall comply all the Directions/ Rules/Instructions issued from time to time by the Board.	Noted and agreed by the unit.

II. Specific Conditions

Sr. No.	Conditions	Remarks
1	Unit will submit six monthly compliance report of the E.C conditions.	Six monthly compliance reports are being submitted regularly to concerned authorities.
2	Unit will submit report of Replenishment study of the mining in the River bed as per EC condition.	The report of Replenishment study of the mining in the River bed as per EC condition is being submitted after monsoon season on yearly basis.
3	Unit will submit Regularly Monitoring of Ground Water level and quality have to be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring have to be carried out four times in a year: Pre-monsoon (April-May), Monsoon (August), Post monsoon (November) and winter (January) and the data collected may be sent regularly to the ministry of Environment, Forest & Climate Change, its Regional Office Chandigarh, Central Ground water authority Regional Director, Ground Central Water Board, State Pollution Control Board and Central Pollution Control Board, but unit has not submitted the reports to HSPCB Sonipat.	Regular monitoring of the ground water in the nearby area is being done and submitted with the six monthly compliance reports.
4	Unit will submit data on ambient air quality should be regularly submitted to the ministry	Regular environmental monitoring is being

	including its Regional Office located at Chandigarh and the State pollution Control Board/ Central Pollution Control Board once in six months but date wise data along with Analysis reports has not been submitted for PM10, PM2.5, SO2 & NOx.	done and reports are being submitted regularly with six monthly compliance reports.
5	Unit will submit analysis reports of ground water monitoring as well as Ambient Air Monitoring for PM10, PM2.5, SO2 & NOx within one month from the issuance of CTO.	CTO was granted to the unit on 05.08.2023 and the mining activity was closed in the mansoon season from 01.07.2023 to 15.09.2023. Latest Analysis Reports of NABL accredited Lab have been submitted by the unit on 13.10.2023.
6	Unit will submit Environment Statement yearly basis.	Unit has submitted Environment Statement on yearly basis.
7	CTO so granted will depend upon outcome of OA No. 581/2022 titled "Vikas Kumar Vs State of Haryana" filed against the unit in Hon'ble National Green Tribunal for violation of Environmental Law/Rule, if outcome of said OA will be against the unit, CTO so granted will be considered revoke automatically.	Noted and agreed by the unit.

The report is submitted for kind consideration of the Hon'ble Tribunal. It is undertaken to comply with the directions passed by the Hon'ble Tribunal.

Place: Sonipat
Date: 17.10.2023

PARDEEP SINGH
Digitally signed by PARDEEP SINGH
Date: 2023.10.17 17:15:26 +05'30'

Regional Officer,
HSPCB, Sonipat

Item No.2 (Court No. 2)

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI.

(Through Physical Hearing with Hybrid V.C. Option)

Original Application No. 581/2022
I.A. No. 595/2023

Vikas Kumar ...Applicant

Versus

State of Haryana & Ors. ...Respondents

Date of hearing: 05.10.2023

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

Applicant: Mr. Raj Panjwani, Senior Advocate, Amicus Curie with Mr. Rahul Choudhary, Advocate

Respondent: Mr. Rahul Khurana Advocate for Respondents No. 1 to 4 with Mr. Sandeep, Chief Engineer, YWS(South)
Mr. Gigi George, Advocate for respondent no. 7
Mr. Pinaki Mishra, Senior Advocate with Mr. Narender Pal Advocate for Respondent No. 5
Mr. Prasenjeet Mohapatra, Advocate for respondent no. 6
Mr. Ravinder Kumar Senior Advocate alongwith Mr. Saurabh Rajpal and Mr. Vinay Singh Advocates Advocate for respondent no. 8 and 9
Mr. Soni Singh, Advocate for CPCB
Mr. Anil Kumar MO, Sonipat

Application is registered based on a complaint received by Post.

ORDER

1. Learned counsel for respondent no. 7 seeks time for filing of his response to the report of the Joint Committee.

I.A. Nos. 728/2023 & 729/2023 Vikas Kumar Vs. State of Haryana & Ors.

In O.A No. 581/2022

2. Response by respondent no. 7 to the report of the Joint Committee may be filed within 10 days by email at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF.

3. Objection/response if any, to the report of the Joint Committee may also be filed by other parties, as mentioned above, if so desired.

4. Respondent no. 3, HSPCB is directed to file additional report mentioning in detail status of compliance of respondent no. 5 M/s Yodha Mines & Minerals with EC/consent conditions.

5. Respondent no. 5- M/s Yodha Mines & Minerals is also directed to file additional reply mentioning in detail CSR/CER activities undertaken by respondent no. 5- M/s Yodha Mines & Minerals and plantation activity carried out by it.

6. Additional report by HSPCB and additional reply by respondent no. 5 be filed within 10 days by email at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF.

7. List for further consideration on 19.10.2023.

Arun Kumar Tyagi, JM

Dr. Afroz Ahmad, EM

October 05th, 2023
N

Speed Post

F. No. J-11015/112/2015-IA-II (M)
Government of India
Ministry of Environment, Forest & Climate Change
Impact Assessment Division

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Dated: 28th January, 2016

To,

M/s Yodha Mines and Minerals
Through Sh. Pradeep Ahlawat S/o Sh. Anand Singh,
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Sub.: Mining of Sand (Minor Mineral) in the Mines of "Jainpur-2 Sand Unit" with Production Capacity of 16 Lakh TPA Sand (Minor Mineral) by M/s Yodha Mines and Minerals located at Vill.-Jainpur, Tehsil and District-Sonipat, Haryana (Mine Lease area 44.40 Ha.)- Environmental Clearance regarding.

Reference: Online Application IA/HR/MIN/27133/2015

Sir,

This has reference to your online application for the above mentioned proposal of M/s Yodha Mines and Minerals for Sand (Minor Mineral) Mining with annual production capacity 16.0 Lakh Tons of Sand (Minor Mineral) in 44.40 Ha. The mine lease (ML) area lies mainly on the bed of River Yamuna (34.40 Ha) and partly in outside riverbed (10.0 Ha) over an area of 44.40 Ha of District - Sonipat, State - Haryana. The Latitudes and Longitudes of MLA in River bed are North 29°03'56" N, 29°03'56" N, 29°03'24" N and 29°03'24" N and East 77°09'36" E, 77° 09'56" E, 77°09'59" E and 77°09'54" E; in outside river bed are North 29°03'39" N, 29°03'39" N, 29°03'23" N and 29°03'23" N and in East 77°07'35" E, 77°07'40" E, 77°07'40" E and 77°07'32.5" E on Survey of India Topo sheet (OSM) numbers H43R4, H43X1, H43R8. The Project is located in Seismic zone-IV. As per EIA Notification dated 14th September, 2006 this project falls under Category "A" or Activity- 1 (a), due to interstate boundary of Haryana and Uttar Pradesh at a distance of 1.0 Km East.

2. The proposal was considered by the Expert Appraisal Committee in its 33rd EAC Meeting held during May 15, 2015 to determine the Terms of Reference (TOR) for undertaking detailed EIA study. The TORs were issued by MoEF&CC vide letter No. J-11015/112/2015-IA-II (M) dated 05-06-2015.The proposal was appraised before the Expert Appraisal Committee in its 1st Meeting held during December 21-22, 2015 wherein the Committee recommended the proposal for Environmental Clearance for Mining of Mineral Sand (Minor Mineral) in the river bed (34.40 ha) with production capacity of 14.40 Lakhs TPA (ROM).

3. The land use of the lease area is Govt. waste land i.e. Gair mumkin nadi nallah in riverbed of Yamuna river and Private land in outside riverbed. No forest land is involved. The Letter of Intent (LOI) of mining lease was granted to M/s Yodha Mines and Minerals on 9th March 2015 for 9 years by Director, Department of Mines & Geology, Haryana vide letter No. DMG/Hy/Cont/Jainpur-2/2015/855. The Mining Plan is approved by Director General, Mines and Geology Department, Govt. of Haryana; vide letter no. DMG/Hy/MP/SNP/Jainpur-2/7079 dated 20/07/2015. The proposed production in riverbed is 14.40 lakh TPA and outside river bed is 1.60 lakh TPA.

4. Proposed method of mining is manual opencast method in riverbed and opencast mechanized outside riverbed. The total water requirement is 19 KLD including water demand for domestic purpose, dust suppression and plantation development which shall be met by hired tanker. Excavation will be carried out up to a maximum depth of 3 m from surface of sand deposit and 1 m above from the water level of the River channel whichever is reached earlier. No ground water interception during the mining operations is envisaged as ground water table is 5-10 m bgl in the riverbed and 15-20 m bgl in outside riverbed. The percentage of replenishment in riverbed is 100% every year. The maximum depth of mining in the riverbed will not exceed 3m from the un-mined bed level at any point of time with mining restricted to the central 3/4th width of the river. A safety margin of 2m will be maintained above the ground water table and no mining operation will be permitted below this level.

5. Project Proponent submitted that mining will be done leaving a safety distance from the banks. Mining will be done only during day time and completely stopped in monsoon season. The site elevation is 215 to 209 m AMSL.

6. Mineral will be transported through road. Project Proponent has made the Traffic Analysis survey and reported that frequency of trucks will be deployed 480 per day which increase 180 PCUs per hour for three highways NH1, SH11 and SH57. The level of service (LOS) for NH1 will remain same as "D", for SH11 it will be same as "C" and for SH57 it will change from "B" to "C". Project Proponent reported that haul roads will be repaired regularly and maintained in good conditions. The NH-1 is currently 6-lane Highway and it is proposed to be 8-lane Highway. The expansion (widening of lanes) of highway is going on and will be completed within 3-4 months. Then the scenario of the LOS will be improved positively from D to C.

7. Project Proponent reported that no National Parks, Wildlife Sanctuaries, Tiger Reserves, eco sensitive Zones falls within study area (10 km radius of the mine boundary). Baseline data has been collected from Pre-Monsoon (March to May 2015) within 10 Km radius of the study area. All the physical parameters i.e.air, water noise and soil were within permissible limit. The public hearing for the Proposed Project was conducted on 30.09.2015 at 10:00 am at mine site in village-Jainpur, Tehsil and Distt.- Sonipat, Haryana. The Public hearing was presided over by Sh. Shiv Prasad Sharma, Additional Deputy Commissioner District-Sonipat, Haryana. The issues raised during the public hearing were also considered and discussed during the meeting, which inter-alia, included that priority to local people in employment, effective implementation of measures to control dust pollution, water conservation measures, village development activities and do not harm nearby fields and social development of village.

8. The capital cost of the project is Rs. 14.46 Crores; cost for Environmental Protection is Rs. 18.0 Lakhs; Budget for Occupational Health and Safety is Rs. 10.0 Lakhs. A budget of Rs. 22.0 Lakhs has been proposed for the conservation of wildlife in the area. A budget of Rs. 5.50 Lakhs per annum is earmarked for plantation and its maintenance. For CSR Rs. 20.0 Lakhs/annum will be allocated. The project proponent will deposit 10% of the annual contract money i.e. Rs. 87.0 Lakhs to the Mines and Minerals Development, Restoration and Rehabilitation Fund.

9. There is no court case against this project, however there is a court case in the matter of Mr. Rajbir Singh v/s State of Haryana and others [CWP No. 27700 of 2013], wherein the petitioner had challenged the conditions of the auction notice and the rules relating to payment of rent and compensation to the land owners. The State Government (Dept. of Mines and Geology) has issued LoI subject to the outcome of this case. The above mentioned case is dismissed by Hon'ble Punjab and Haryana High Court, order dated 19.10.2015.

10. The Committee deliberated at length the information submitted by PP and recommended the Proposal for environmental clearance for Mining of Mineral Sand (Minor Mineral) in the river bed (34.40) and not in the paleochannel/agricultural land with proposed production capacity of 14.40 Lakhs TPA (ROM). The committee has decided to exclude agriculture land in view of the representations stating that the mining in the paleochannel/agricultural land will result in deterioration of agricultural land, drainage pattern of the area resulting into the ponding effect.

11. The Ministry of Environment, Forest & Climate Change has examined the proposal in accordance with the Environmental Impact Assessment Notification, 2006 and further amendments thereto and hereby accords the environmental clearance under the provisions thereof to the above mentioned proposal of **Mining of Sand (Minor Mineral) in the Mines of "Jainpur-2 Sand Unit" with Production Capacity of 14.4 Lakh TPA Sand (Minor Mineral) from river bed by M/s Yodha Mines and Minerals located at Vill.-Jainpur, Tehsil and District-Sonipat, Haryana (Mine Lease area 34.40 ha in river bed)** subject to compliance of the followings terms and conditions and environmental safeguards mentioned below:-

A. Specific conditions

(i) Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court of Haryana and any other Court of Law, if any, as may be applicable to this project.

(ii) Environmental clearance is subject to obtaining clearance, under the Wildlife (Protection) Act, 1972 from the National Board of Wildlife, as applicable to the project.

(iii) No mining activities will be allowed in forest area, if any, for which the Forest Clearance is not available.

(iv) The Project Proponent shall obtain Consent to Operate from the State Pollution Control Board, Haryana and effectively implement all the conditions stipulated therein.

(v) Project Proponent shall implement the Disaster Management Plan as the mine lease area is located in Seismic Zone-III. Project Proponent shall appoint a Committee to have a check over any disaster to warn workers well before for the safety of the workers. Emergency helpline number will be displayed at all levels.

(vi) Project Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and records maintained; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smokers, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. Recommendations of National Institute for Labour for ensuring good occupational environment for mine workers would also be adopted; All the old age people of the surrounding villages may be provided medical facilities.

(vii) Project Proponent shall appoint a Monitoring Committee to monitor the replenishment study, traffic management, levels of production, River Bank erosion and maintenance of Road etc.

(viii) The number of trips of the trucks shall not exceed the estimated quantity of 480 trucks trips per day. Transport of minerals shall be done either by dedicated road or it should be ensured that the trucks/dumpers carrying the mineral should not be allowed to pass through the villages.

(ix) Project Proponent shall ensure that the road may not be damaged due to transportation of the mineral; and transport of minerals will be as per IRC Guidelines with respect to complying with traffic congestion and density.

(x) Implementation of Action Plan on the issues raised during the Public Hearing. The Proponent shall complete all the tasks as per the Action Plan submitted with the budgetary provisions during the Public Hearing.

(xi) Excavation will be carried out up to a maximum depth of 3 meters from surface of mineral deposit and not less than one meter from the water level of the River channel whichever is reached earlier.

(xii) The pollution due to transportation load on the environment will be effectively controlled & water sprinkling will also be done regularly. Vehicles with PUCC only will be allowed to ply. The mineral transportation shall be carried out through covered trucks only and the vehicles carrying the mineral shall not be overloaded. Project should obtain 'PUC' certificate for all the vehicles from authorized pollution testing centre.

(xiii) Washing of all transport vehicle should be done inside the mining lease.

(xiv) Permanent pillars has to be constructed to demarcate width of extraction of ROM leaving 25% of River width from the bank with depth of 1.5m below the ground and 1.2 m above the ground to observe its stability.

(xv) An independent study be organised during peak activity, to understand how the actuals compare with the carrying capacities and further decisions taken to maintain sustainability of this essential sand extraction and supply activity. Project Proponent shall ensure that the road may not be damaged due to transportation of the sand; and transport of minerals will be as per IRC Guidelines with respect to complying with traffic congestion and density.

(xvi) The pollution due to transportation load on the environment shall be effectively controlled & water sprinkling be done regularly. Vehicles with PUCC only shall be allowed to ply. The mineral transportation shall be carried out through covered trucks only and the vehicles carrying the mineral shall not be overloaded. Project should obtain 'PUC' certificate for all the vehicles from authorized pollution testing centre.

(xvii) There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis in consultation with Regional Director, Central Groundwater Board and implementation of conservation measures to augment ground water resources in the area in consultation with Central Ground Water Board.

(xviii) Implementation of Environment Management Policy of the Company w.r.t. judicious use of Mineral resources for growth & development synchronizing mining & environment with prosperity.

(xix) The Project Proponent shall also take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any, spotted in the study area.

(xx) The illumination and sound at night at project site, disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. Project Proponent must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.

(xxi) Main haulage road in the mine should be provided with permanent water sprinklers and other roads should be regularly wetted with water tankers fitted with sprinklers.

(xxii) Transportation of the minerals by road passing through the village shall not be allowed. A 'bypass' road should be constructed (say, leaving a gap of at least 200 meters) for the purpose of transportation of the minerals so that the impact of sound, dust and accidents could be mitigated. The Project Proponent shall bear the cost towards the widening and strengthening of existing public road network in case the same is proposed to be used for the Project. No road movement should be allowed on existing village road network without appropriately increasing the carrying capacity of such roads.

(xxiii) Likewise, Alteration or re-routing of foot paths, pagdandies, cart roads, and village infrastructure/public utilities or roads (for purposes of land acquisition for mining) shall be avoided to the extent possible and in case such acquisition is inevitable, alternative arrangements shall be made first and then only the area acquired. In these types of cases, Inspection Reports by site visit by experts may be insisted upon which should be done through reputed Institutes.

(xxiv) CSR activities by Companies including the Mining Establishments has become mandatory up to 2% of their financial Turn-over, Socio Economic Development of the neighborhood Habitats could be planned and executed by the Project Proponent more systematically based on the 'Need based door to door survey' by established Social Institutes/Workers. The report shall be submitted to the Ministry of Environment & Forest and its Regional Office located at Dehradun on six monthly basis.

(xxv) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

(xxvi) A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment, Forest & Climate Change 5 years in advance of final mine closure for approval.

B 1 : Special Conditions:

The Ministry of Environment, Forest and Climate has constituted a Committee to formulate the "Guidelines for Sustainable Sand Mining in the Country". The Guidelines, inter-alia, included the following recommendations. The

Project Proponent shall implement the following special conditions so as to mitigate the environment impact of mining activities:-

Impact Category	S. No.	Environmental Conditions
Stakeholder Engagement	1	In the case of private land not owned by the lease holder an affidavit should be obtained regarding consent of the concerned land owner (s) for carrying out the mining operation.
	2	Stakeholder awareness and ability to raise concerns and getting it to be addressed.
	3	Implementation of Action Plan on the issues raised during the Public Hearing. The Proponent shall complete all the tasks as per the Action Plan submitted with the budgetary provisions during the Public Hearing.
	4	Having valid lease and all the permits is very much needed.
	5	To establish a Monitoring Committee including Local Panchayat, to check on traffic due to transportation and submit an annual report on the same.
	6	The directions given by the Hon'ble Supreme Court of India vide order dated 27.02.2012 in Deepak Kumar case [SLP(C) Nos. 19628-19629 of 2009] and order dated 05.08.2013 of the Hon'ble National Green Tribunal in application No. 171/2013 may be strictly followed.
	7	All the provisions made and restrictions imposed as covered in the Minor Mineral Rule, shall be complied with, particularly regarding Environment Management Practices and its fund management and Payment of compensation to the land owners.
Sustainable Mining Practices	8	District level Survey Report should be prepared and area suitable for mining and area prohibited for mining be identified.
	9	The depth of mining in Riverbed shall not exceed one meter or water level whichever is less, provided that where the Joint Inspection Committee certifies about excessive deposit or over accumulation of mineral in certain reaches requiring channelization, it can go up to 3 meters on defined reaches of the River.
	10	No River sand mining be allowed in rainy season.
	11	To submit annual replenishment report certified by an authorized agency. In case the replenishment is lower than the approved rate of production, then the mining activity / production levels shall be decreased / stopped accordingly till the replenishment is completed.
	12	Ultimate working depth shall be up to 3 m from Riverbed level and not less than one meter from the water level of the River channel whichever is reached earlier. In hilly terrain this depth be preferably restricted to one meter.
	13	In River flood plain mining a buffer of 3 meter to be left from the River bank for mining.
	14	In mining from agricultural field a buffer of 3 meter to be

		left from the adjacent field.
	15	Mining shall be done in layers of 1 meter depth to avoid ponding effect and after first layer is excavated, the process will be repeated for the next layers.
	16	To maintain safety and stability of Riverbanks i.e. 3 meter or 10% of the width of the River whichever is more will be left intact as no mining zone.
	17	No stream should be diverted for the purpose of sand mining. No natural water course and/ or water resources are obstructed due to mining operations.
	18	No blasting shall be resorted to in River mining and without permission at any other place.
	19	Depending upon the location, thickness of sand, deposition, agricultural land/Riverbed, the method of mining may be manual, semi-mechanized or mechanized; however, manual method of mining shall be preferred over any other method.
Identification and Preparation of Mining Site	20	Mining should be done only in area / stretch identified in the District Level Survey Report suitable for mining and so certified by the Sub-Divisional Level Committee after site visit.
	21	Mining should begin only after pucca pillar marking the boundary of lease area is erected at the cost of the lease holder after certification by the mining official and its geo coordinates are made available to the District Level Committee.
	22	The top soil in case of surface land mining shall be stored temporarily in an earmarked site and concurrently used for land reclamation.
Monitoring the Mining of Mineral and its Transportation	23	The EC holder shall keep a correct account of quantity of mineral mined out, dispatched from the mine, mode of transport, registration number of vehicle, person in-charge of vehicle and mine plan. This should be produced before officers of Central Government and State for inspection.
	24	For each mining lease site the access should be controlled in a way that vehicles carrying mineral from that area are tracked and accounted for.
	25	The State / District Level Environment Committee should use technology like Bar Coding, Information and Communications Technology (ICT), Web based and ICT enabled services, mobile SMS App etc. to account for weight of mineral being taken out of the lease area and the number of trucks moving out with the mineral.
	26	There should be regular monitoring of the mining activities in the State to ensure effective compliance of stipulated EC conditions and of the provisions under the Minor Mineral Concessions Rules framed by the State Government.
Noise Management	27	Noise arising out of mining and processing shall be abated and controlled at source to keep within permissible limit.
	28	Restricted working hours. Sand mining operation has to be carried out between 6 am to 7 pm.
Air Pollution and Dust	29	The pollution due to transportation load on the environment will be effectively controlled and water

Management		sprinkling will also be done regularly.
	30	Air Pollution due to dust, exhaust emission or fumes during mining and processing phase should be controlled and kept in permissible limits specified under environmental laws.
	31	The mineral transportation shall be carried out through covered trucks only and the vehicles carrying the mineral shall not be overloaded. Wheel washing facility should be installed and used.
Management of Visual Impact	32	The mining operations are to be done in a systematic manner so that the operations shall create a major visual impact on the site.
Bio-Diversity Protection	33	Restoration of flora affected by mining should be done immediately. Twice the number of trees destroyed by mining to be planted preferably of indigenous species. Each EC holder should plant and maintain for lease period at least 5 trees per hectare in area near lease.
	34	No mining lease shall be granted in the forest area without forest clearance in accordance with the provisions of the Forest Conservation Act, 1980 and the rules made thereunder.
	35	Protection of turtle and bird habitats shall be ensured.
	36	No felling of tree near quarry is allowed. For mining lease within 10km of the National Park / Sanctuary or in Eco-Sensitive Zone of the Protected Area, recommendation of Standing Committee of National Board of Wild Life (NBWL) have to be obtained as per the Hon'ble Supreme Court order in I.A. No. 460 of 2004.
	37	Spring sources should not be affected due to mining activities. Necessary Protection measures are to be incorporated.
Management of Instability and Erosion	38	Removal, stacking and utilization of top soil in mining are should be ensured. Where top soil cannot be used concurrently, it shall be stored separately for future use keeping in view that the bacterial organism should not die and should be spread nearby area.
	39	The EC should stipulate conditions for adequate steps to check soil erosion and control debris flow etc. by constructing engineering structures
	40	Use of oversize material to control erosion and movement of sediments
	41	No overhangs shall be allowed to be formed due to mining and mining shall not be allowed in area where subsidence of rocks is likely to occur due to steep angle of slope.
	42	No extraction of stone / boulder / sand in landslide prone areas.
	43	Controlled clearance of riparian vegetation to be undertaken
Waste Management	44	Site clearance and tidiness is very much needed to have less visual impact of mining.
	45	Dumping of waste shall be done in earmarked places as approved in Mining Plan.
	46	Rubbish burial shall not be done in the Rivers.
Pollution	47	The EC holder shall take all possible precautions for the

Prevention		protection of environment and control of pollution.
	48	Effluent discharge should be kept to the minimum and it should meet the standards prescribed.
Protection of Infrastructure	49	Mining shall not be undertaken in a mining lease located in 200–500 meter of bridge, 200 meter upstream and downstream of water supply / irrigation scheme, 100 meters from the edge of National Highway and railway line, 50 meters from a reservoir, canal or building, 25 meter from the edge of State Highway and 10 meters from the edge of other roads except on special exemption by the Sub-Divisional level Joint Inspection Committee.
	50	For carrying out mining in proximity to any bridge or embankment, appropriate safety zone (not less than 200 meters) should be worked out on case to case basis, taking into account the structural parameters, location aspects and flow rate, and no mining should be carried out in the safety zone so worked out.
	51	Mining activities shall not be done for mine lease where mining can cause danger to site of flood protection works, places of cultural, religious, historical, and archeological importance.
Enhancement of Road Safety	52	Vehicles used for transportation of sand are to be permitted only with fitness and PUC Certificates.
	53	Junction at takeoff point of approach road with main road be properly developed with proper width and geometry required for safe movement of traffic by concession holder at his own cost.
	54	Project Proponent shall ensure that the road may not be damaged due to transportation of the mineral; and transport of minerals will be as per IRC Guidelines with respect to complying with traffic congestion and density.
	55	No stacking allowed on road side along National Highways.
Closure and Reclamation of Mined Out Area	56	The Project Proponent shall undertake phased restoration, reclamation and rehabilitation of land affected by mining and completes this work before abandonment of mine.
	57	Restoration, reclamation and rehabilitation in cluster should be done systematically and jointly by each EC holder in that cluster. This should be appropriately reflected as EC condition in each EC in cluster.
	58	Site specific plan with eco-restoration should be in place and implemented.
Health and Safety	59	Health and safety of workers should be taken care of.
	60	Transport of mineral will not be done through villages / habitations.
	61	The Project Proponent shall make arrangement for drinking water, first aid facility (along with species specific anti-venom provisioning) in case of emergency for the workers.
	62	Project Proponent shall implement the Disaster Management Plan if the mine lease area is located in Seismic Zone-IV. Project Proponent shall appoint a Committee to have a check over any disaster to warn workers well before for the safety of the workers. Emergency helpline number will be displayed at all levels.

	63	Project Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and records maintained; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smokers, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. Recommendations of National Institute for Labour for ensuring good occupational environment for mine workers would also be adopted.
Monitoring the Impact of Mining	64	The Project Proponent shall report monitoring data on replenishment, traffic management, levels of production, River Bank erosion and maintenance of Road etc.
Mineral Conservation	65	Use of alternate material such as M-sand in place of natural River sand shall be encouraged in order to reduce stress on natural eco-system.

B-2: PROCEDURE FOR MONITORING OF SAND MINING

(i) Project Proponent must ensure that the security features of Transport Permission viz. (a) Printed on Indian Bank Association (IBA) approved Magnetic Ink Character Recognition Code (MICR) paper; (c) Unique Barcode; (d) Unique Quick Response Code (QR); (e) Fugitive Ink Background; (f) Invisible Ink Mark; (g) Void Pantograph; (h) Watermark.

(ii) Project Proponent must ensure that the CCTV camera, Personal Computer (PC), Internet Connection, Power Back up, access control of mine lease site; and arrangement for weight or approximation of weight of mined out mineral on basis of volume of the trailer of vehicle used at mine lease site are available.

(iii) Project Proponent must ensure the Scanning of Transport Permit or Receipt and Uploading on Server.

(iv) The State Mines and Geology Department should print the Transport Permits / Receipt with security features enumerated at Paragraph (i) above and issue them to the mine lease holder through the District Collector. Once these Transport Permits or Receipts are issued, they would be uploaded on the server against that mine lease area. Each receipt should be preferably with pre-fixed quantity, so the total quantity gets determined for the receipts issued. When the Transport Permit or Receipt barcode gets scanned and invoice is generated, that particular barcode gets used and its validity time is recorded on the server. So all the details of transporting of mined out material can be captured on the server and the Transport Permit or Receipt cannot be reused.

(v) The staff deployed for the purpose of checking of vehicles carrying mined mineral should be in a position to check the validity of Transport Permit or Receipt by scanning them using website, Android Application and SMS.

(vi) In case the Vehicle breakdown, the validity of Transport Permit or Receipt shall be extended by sending SMS by driver in specific format to report breakdown of vehicle. The server will register this information and register the breakdown. The State can also establish a call centre, which can register breakdowns of such vehicles and extend the validity period. The subsequent restart of the vehicle also should be similarly reported to the server / call centre.

(vii) The route of vehicle from source to destination shall be tracked through the system using check points, Radio-frequency identification (RFID) Tags, and Global Positioning System (GPS) tracking.

(viii) The system shall enable the Authorities to develop periodic report on different parameters like daily lifting report, vehicle log/ history, lifting against allocation, and total lifting. The system can be used to generate auto mails/SMS. This will enable the District Collector / Magistrate to get all the relevant details and will enable the authority to block the scanning facility of any site found to be indulged in irregularity. Whenever any authority intercepts any vehicle transporting illegal sand, it shall get registered on the server and shall be mandatory for the officer to fill in the report on action taken. Every intercepted vehicle should be tracked.

C. General conditions

(i) No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment, Forest & Climate Change.

(ii) No change in the calendar plan including excavation, quantum of mineral and waste should be made.

(iii) The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and ground water for the project.

(iv) There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis in consultation with Regional Director, Central Groundwater Board and implementation of conservation measures to augment ground water resources in the area in consultation with Central Ground Water Board.

(v) Regular monitoring of ground water table to be carried out at the upstream and depth of water available in the dug well is to be measured. Monitoring to be done by establishing a network of existing wells and constructing new piezometers.

(vi) Monitoring of Ambient Air Quality to be carried out based on the Notification, as amended from time to time by the Central Pollution Control Board. Water sprinkling should be increased at places loading and unloading points & transfer point to reduce fugitive emissions.

(vii) The upliftment of scheduled caste/scheduled tribe population, specific programmes have been taken in to consideration specially with respect to education, health care, livelihood generation, infrastructure development & promotion of sports & culture for SC/ST population and that these will be intensified in future.

(viii) The top soil, if any, shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time. The maximum height of the dumps shall not exceed 8m and width 20 m and overall slope of the dumps shall be maintained to 45^0. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled and afforested. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to

the Ministry of Environment, Forest & Climate Change and its Regional Office located at Chandigarh on six monthly basis.

(ix) Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. The drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and over burden dumps to prevent run off of water and flow of sediments directly into the river and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.

(x) Plantation shall be raised in a 20m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, around water body, along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.

(xi) Dimension of the retaining wall at the toe of over burden dumps and OB benches within the mine to check run-off and siltation shall be based on the rain fall data.

(xii) Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM_{10} and $PM_{2.5}$ such as haul road, loading and unloading point and transfer points. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.

(xiii) Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintained. Regular monitoring of water quality upstream and downstream of water bodies shall be carried out and record of monitoring data should be maintained and submitted to the Ministry of Environment, Forest & Climate Change, its Regional Office, Chandigarh, Central Groundwater Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.

(xiv) Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year - pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to Ministry of Environment, Forest & Climate Change and its Regional Office, Chandigarh, Central Ground Water Authority and Regional Director, Central Ground Water Board.

(xv) The critical parameters such as PM_{10} (size less than 10 micro meter), $PM_{2.5}$ (size less than 2.5 micro meter), NO_X in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total

Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The circular No. J-20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest & Climate Change, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance.

(xvi) Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for PM_{10}, $PM_{2.5}$, SO_2 & NOx monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board. Data on ambient air quality should be regularly submitted to the Ministry including its Regional office located at Chandigarh and the State Pollution Control Board / Central Pollution Control Board once in six months.

(xvii) Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.

(xviii) Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.

(xix) Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.

(xx) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.

(xxi) Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.

(xxii) A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.

(xxiii) The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office located at Chandigarh.

(xxiv) The project authorities should inform to the Regional Office located at Chandigarh regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.

(xxv) The Regional Office of this Ministry located at Chandigarh shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.

(xxvi) The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment, Forest & Climate Change, its Regional Office, Chandigarh, Central Pollution Control Board and State Pollution Control Board.

(xxvii) A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation has been received while processing the proposal.

(xxviii) State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.

(xxix) The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment, Forest & Climate Change at **http://envfor.nic.in** and a copy of the same should be forwarded to the Regional Office of this Ministry located Chandigarh.

12. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

13. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

14. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court of Punjab and Haryana and any other Court of Law relating to the subject matter.

15. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Yours faithfully,

(Dr. U. Sridharan)
Scientist 'F'

Copy to:

i. **The Secretary**, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
ii. **The Secretary,** Department of Environment, Government of Haryana, Chandigarh.
iii. **The Secretary,** Department of Forest, Government of Haryana, Chandigarh.
iv. **The Secretary,** Department of Mines and Geology, Government of Haryana, Chandigarh.
v. **The Additional Principal Chief the Conservator of Forests (C),** Ministry of Environment & Forests, Regional Office (NZ), Bays No. 24-25, Sector 31-A, Dakshin Marg, Chandigarh-160 030.

vi. **The Chairman,** Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office complex, East Arjun Nagar, New Delhi-1100032.

vii. **The Member Secretary,** Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-ll0001.

viii. **The Chairman,** Haryana Pollution Control Board, Plot No. C-11, Sector-6, Panchkula- 134109, Haryana.

ix. **The Controller General,** Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.

x. The District Collector, Sonipat, District, Haryana.

xi. Guard File.

(Dr. U. Sridharan)
Scientist 'F'

HARYANA STATE POLLUTION CONTROL BOARD
Star Complex, Opp. General Hospital, Delhi Road, Sonepat Ph. 0130-2236119(O) Email:- hspcbrosr@gmail.com
E-mail: hspcb@hry.nic.in

No. HSPCB/Consent/ : 313100423SONCTO38992547 **Dated:05/08/2023**

To.

M/s :Yodha Mines And Minerals
Sand Mine at Jainpur-2 Unit, Village Jainpur, district Sonepat (Haryana)

Subject: Grant of consent to operate to M/s Yodha Mines And Minerals.

Please refer to your application no. 38992547 received on dated 2023-06-22 in regional office Sonipat.With reference to your above application for consent to operate,M/s Yodha Mines And Minerals is here by granted consent as per following specification/Terms and conditions.

Consent Under	BOTH
Period of consent	01/10/2023 - 30/09/2024
Industry Type	Mining and ore beneficiation
Category	RED
Investment(In Lakh)	1446.0
Total Land Area(Sq. meter)	444000.0
Total Builtup Area(Sq. meter)	0.0
Quantity of effluent	
1. Trade	0.0 KL/Day
2. Domestic	5.0 KL/Day
Number of outlets	1.0
Mode of discharge	
1. Domestic	Septic Tank
2. Trade	N.A.
Domestic Effluent Parameters	
1. NA	
Trade Effluent Parameters	
1. NA	
Number of stacks	1
Height of stack	
1. NA	
Emission parameters	
1. PM10	100 micro gm/m3
2. PM2.5	60 micro gm/m3
Product Details	

1. Yamuna sand	5333 Metric Tonnes/day
Capacity of boiler	
1. NA	Ton/hr
Type of Furnace	
1. NA	
Type of Fuel	
1. NA	
Raw Material Details	
Yamuna sand	5333 Metric Tonnes/Day

Regional Officer, Sonipat

Haryana State Pollution Control Board.

Terms and conditions

1. The applicants shall maintain good house keeping both within factory and in the premises. All hose pipelines values, storage tanks etc. shall be leak proof. In plant allowable pollutants levels, if specified by State Board should be met strictly.
2. The applicant/company shall comply with and carry out directive/orders issued by the Board in this consent order at all subsequent times without negligence of his /its part. The applicant/company shall be liable for such legal action against him as per provision of the law/act in case of violation of any order/directives. Issued at any time and or non compliance of the terms and conditions of his consent order.
3. The applicant shall make an application for grant of consent at least 90 days before the date of expiry of this consent.
4. Necessary fee as prescribed for obtaining renewal consent shall be paid by the applicant alongwith the consent application.
5. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above required variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard vary all or such condition and there upon the applicant shall be bound to comply with the conditions so varied.
6. The industry shall provide adequate arrangement for fighting the accidental leakages, discharge of any pollutants gas/liquids from the vessels, mechanical equipment etc. which are likely to cause environment pollution.
7. The industry shall comply noise pollution (Regulation and control) Rules, 2000.
8. The industry shall comply all the direction/Rules/Instructions as may be issued by the MOEF/CPCB/HSPCB from time to time.
9. The industry shall ensure that various characteristics of the effluents remain within the tolerance limits as specified in EPA Standard and as amended from time to time and at no time the concentration of any characteristics should exceed these limits for discharge.
10. The industry would immediately submit the revised application to the Board in the event of any change in the raw material in process, mode of treatment/discharge of effluent. In case of change of process at any stage during the consent period, the industry shall submit fresh consent application alongwith the consent to operate fee, if found due, which may be on any account and that shall be paid by the industry and the industry would immediately submit the

consent application to the Board in the event of any change during the year in the raw material, quantity, quality of the effluent, mode of discharge, treatment facilities etc.

11. The officer/official of the Board shall reserve the right to access for the inspection of the industry in connection with the various process and the treatment facilities. The consent to operate is subject to review by the Board at any time.

12. Permissible limits for any pollutants mentioned in the consent to operate order should not exceed the concentration permitted in the effluent by the Board.

13. The industry shall pay the balance fee, in case it is found due from the industry at any time later on.

14. If the industry fails to adhere to any of the conditions of this consent to operate order, the consent to operate so granted shall automatically lapse.

15. If the industry is closed temporarily at its own, they shall inform the Board and obtain permission before restart of the unit.

16. The industry shall comply all the Directions/ Rules/Instructions issued from time to time by the Board.

Specific Conditions :

1. Unit will submit six monthly compliance report of the E.C conditions. 2. Unit will submit report of Replenishment study of the mining in the River bed as per EC condition. 3. Unit will submit Regularly Monitoring of Ground Water level and quality have to be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring have to be carried out four times in a year: Pre-monsoon (April-May), Monsoon (August), Post monsoon (November) and winter (January) and the data collected may be sent regularly to the ministry of Environment, Forest & Climate Change, its Regional Office Chandigarh, Central Ground water authority Regional Director, Ground Central Water Board, State Pollution Control Board and Central Pollution Control Board, but unit has not submitted the reports to HSPCB Sonipat. 4. Unit will submit data on ambient air quality should be regularly submitted to the ministry including its Regional Office located at Chandigarh and the State pollution Control Board/ Central Pollution Control Board once in six months but date wise data along with Analysis reports has not been submitted for PM10, PM2.5, SO2 & NOx. 5. Unit will submit analysis reports of ground water monitoring as well as Ambient Air Monitoring for PM10, PM2.5, SO2 & NOx within one month from the issuance of CTO. 6. Unit will submit Environment Statement yearly basis. 7. CTO so granted will depend upon outcome of OA No. 581/2022 titled “Vikas Kumar Vs State of Haryana” filed against the unit in Hon’ble National Green Tribunal for violation of Environmental Law/Rule, if outcome of said OA will be against the unit, CTO so granted will be considered revoke automatically.

Regional Officer, Sonipat
Haryana State Pollution Control Board.

Photos taken during inspection of the unit M/s Yodha Mines & Minerals on dated 06.10.2023

1. Photos taken during inspection

2. **Photo showing of depth of Mining**

3. **Photos showing erection of PUCCA pillars**

4. **Photo of water sprinkling**

5. Weighing of vehicle carrying mined minerals

Cat. A Mech. O/C

MINING PLAN INCLUDING PROGRESSIVE MINE CLOSURE PLAN

(Submitted Under Rule 70 (1) & 77(2) of Haryana Minor Mineral Concession, Stocking, Transportation of Minerals and Prevention of Illegal Mining Rules, 2012)

FOR

Department of Mines and Geology, Haryana, Panchkula
APPROVED
With Conditions
शर्तों के साथ अनुमोदित
Vide Letter No. DMG/HY/MP/SNP/Jainpur-2/2023/6410-6413
दिनांक/Dated 04-08-2023
राज्य भू-विज्ञानी
State Geologist

SAND MINE (MINOR MINERAL)

OF

JAINPUR (BLOCK-2)

VILLAGE-JAINPURR, TEHSIL -SONIPAT

DISTRICT-SONIPAT, STATE-HARYANA

TOTAL LEASE AREA-44.40Hect.(NON-FOREST)

PRODUCTION CAPACITY – 1440000T/ANNUM

LEASE PERIOD – 9 YEARS (28/1/2016 to 27/1/2025)

PERIOD OF MINING SCHEME –BALANCE4 YEARS

APPLICANT

M/S YODHA MINES & MINERALS
PROPRIETOR SHRI PRADEEPAHLAWAT S/O ANAND SINGH
19-P Sector 8, Jind Haryana 126102,

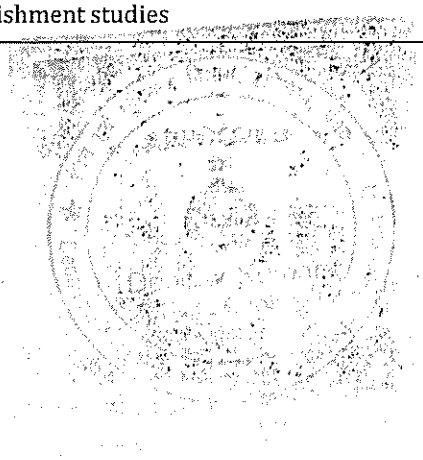
Prepared By
Govind Singh Mining Engineer, EX RQP, IBM(RQP/AJM/345/2013/B)
Phone 94140 71070,naruka.consultancy@gmail.com

S.No	TABLE OF CONTENTS
	Introductory notes
1.0	General Information
2.0	Location and accessibility
	Details of approved mining plan/scheme
	Review of earlier approved proposal
PART -A	Geology and Exploration
2.0	Mining
	Underground Mining
3.0	Mine Drainage
4.0	Stacking Of Mineral Reject /Sub Grade Material and Disposal Of Waste
5.0	Use of Mineral And Mineral Reject
6.0	Processing of Mineral Rejects
7.0	Site services
8.0	Progressive Mine Closure Plan

S.No.	LIST OF PLATES	Scale	Plate no.
1	Location Plan	Not to scale	1
2	Key Plan	1:50000	2
3	Replenished Surface Plan	1:2000	3
4	Surface Geological Plan and Sections	1;2000	4
5	Year wise Development Plans and Sections (2021-2022)	1:2000	5A
6	Year wise Development Plans and Sections (2022-2023)	1:2000	5B
7	Year wise Development Plans and Sections (2023-2024	1:2000	5C
8	Year wise Development Plans and Sections (2024-2025	1:2000	5D
9	Conceptual Plan and Section	1:2000	6
10	Environment Plan	1:5000	7

LIST OF ANNEXURES

S.No.	Particulars	Annexure No.
1.	Consent & undertaking by the owner	
2.	Letter of Authorization by owner for preparation of mining plan to Qualified person	
3.	Copy of Aadhar card and Pan card of owner /authorized signatory	
4.	Copy of LOI, Mining Lease Deed with map	
5	Copy of approval letter of first Mining plan	
6.	Copy of Air & Water Consent Given By State Govt.	
7.	Copy of Environment Clearance	
8	Air Quality Monitoring Report	
9	Water Quality Monitoring Report	
10	Noise Monitoring Report	
11	Soil Monitoring Report	
12	Mine Water Balance Chart	
13	Copy of Qualification and experience of qualified person	
14	Copy of Replenishment studies	



INTRODUCTORY NOTES

M/S Yodha Mines and Minerals company is having office at 319-P Sector 8, Jind Haryana 126102, registered with state department and since than been engaged in contract mining mainly for sand ,stone and various other minerals involving operations like removal of overburden, mining ,logistics etc. YMM is one of Haryana state's leading sand mining company in private sector with annual turnover of apprx. INR 15 Cr. the year ended 2019. The promoters of are engaged trading of sand, aggregates in Haryana, Uttar Pradesh and Delhi.

Govt. of Haryana, Department of Mines and Geology conducted auction of Boulder, Gravel and Sand minor mineral mine of "Jainpur-2 area . M/S Yodha Mines and Minerals company was considered as highest bidder by paying 8.70 crores rupees. for the Jainpur -2block , accordingly LOI was issued for tentative area 44.40 Hectares for 9 years. M/S Yodha Mines and Minerals company is one of the leading company in sand mining in the state of Haryana having vast experience in operating sand mines ,Road - Building Construction and Marketing of building material in sonipat and nearby district and other parts of the state. The company is experienced having technical staffs and resources to work in mining.

Subsequent to auction process by Department of Mines & Geology, Govt. of Haryana, issued the letter of intent for LOI grant **(Annexure-4)** vide letter no. DMG/HY/Cont./Jainpur -2/2015/855 dated, 09.03.2015 in favor of M/S Yodha Mines and Minerals Company.

The period of lease shall be 09 years & the same shall commence with effect from the date of grant of Environment Clearance by Competent Authority or on expiry of a period of 12 months from the date of communication of acceptance of highest bid /issuance of "**Letter of Intent** "whichever is earlier.

The first Mining Plan including Progressive Mine Closure Plan was approved by the competent authority DMG, Haryana vide letter no. DMG/HY/MPSNP/Jainpur-2/2015 /7079 dated 20.7.2015

After obtaining requisite Environmental Clearance (EC) from the SEIAA, Haryana vide letter no MOEFCC/J-11015/112/2015-IA-II(M) dated 28.01.2016, for production of 1600000 TPA **(Annexure-7)** the lessee has started the sand, gravel mining operations with effect from 25.1.2017. After obtaining EC, Consent for Air , water and Hazardous substances from the state Pollution Control Board **(Annexure-6)** and finally the applicant started the mining work from August 2017 after executing Mining lease agreement and registration.

Initially the lessee started working in fresh and replenished area for which no history /record is available on account of yearly replenishment. The lease started working from a block measuring size 34.40 ha area. The present Lease holder commenced mining of boulder, gravel and sand to produce 1600,000 TPA from this area w.e.f. 25.1.2017. by deploying heavy earth moving machineries. The mineral produced was sent to the construction sites operating nearby lease area .

"The present document is submitted for mining scheme for next four year (2021-2025) along with review of past Mining plan and PMCP under Rule 17(2)of MCR, 2016" for existing capacity of 16,00,000 TPA under compliance of Haryana Minor Mineral Concession, Stocking and Transporting of Minerals and Prevention of Illegal Mining Rules- 2012 without changing in mining technology .There is no change in capacity and methodology .

GENERAL INFORMATION

a.)	**Name of the Lessee** **i) Nominated Owner**	M/S Yodha Mines and Minerals C/0 Pradeep Ahlawat s/o Anand Singh 19P Sector 8 Jind ,Haryana 126102 e-mail: Phone : 8199899991
	iii) Head Office	M/S Yodha Mines and Minerals C/0 Pradeep Ahlawat s/o Anand Singh 19-P Sector 8 Jind ,Haryana 126102 e-mail: Phone : 8199899991
	iv) Site address	M/S Yodha Mines and Minerals C/0 Pradeep Ahlawat s/o Anand Singh 19P Sector 8 Jind ,Haryana 126102 Village –Jainpur Block Tehsil - Rai Distt. Sonipat Haryana
	Rule 45 IBM Registration Number	-NA-
	Mining Lease code	NA
b.)	**Status of the Applicant**	It is a private Company having experience in sand Min ,transportation and marketing of minerals and products
	Name of the Directors /partners	Name, address and Photo indentify of owners /partn are placed as Sandeep Singh Ahlawat 19-P Sector 8 Jind ,Haryana 126102
c.)	**Minerals which are included in the PL**	It is an auctioned block from Department of Mines a Geology Department , Govt. of Haryana
d).	**Mineral (s) which is/are included in the Lease Deed**	Sand as minor minerals

e.).	**Minerals which are the lessee indents to mine**	Sand as minor minerals
f.)	**Name of Qualified person , who prepare the Mining Plan with PMCP-** Lessee appointed following qualified person for preparation the Mining plan w PMCP. whose Name, address, Qualification and Experience are as under - **Name:** Shri Govind Singh Naruka M/s Pinkcity Mining Consultancy Pvt. Ltd. **Address:** Khachariyawas House D/88, Meera Marg, Bani Park, Jaipur-302016 Mobile: 9314071068, 94140 71070 Registration Number: RQP/AJM345/2013/B **(Annexure.-13)**	
g)	**Name of a Person employed under clause I of Sub rule (1) of rule 42 of MCDR, 1988 (Applicable for Scheme of Mining only)**	Statutory mining persons are employed as per Rules of MCDR, 2017 and Regulations of MMR-2016.
	Address-	First class Manager (Mines)
	Phone number /mobile number	C/0 Yodha Mines and Minerals company
	Fax Number	Village –Jainpur –unit2
	Registration Number	Tehsil --Rai
		Distt. Yamuna agar
		Haryana
		Phone : 7903577346

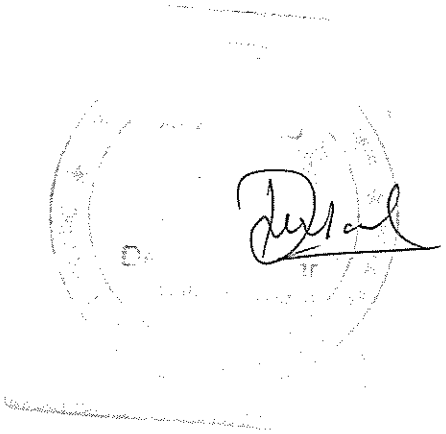
2.0 LOCATION AND ACCESSIBILITY

	Lease details	The sand mine 44.40 hect. is a open cast fully mechanized sand mine for which LOI was issued in favour to M/s. Yodha Mines and Minerals vide letter no.DMG/HY/Cont./Jainpur-2//2015/855 dated **09.03.2015** by following bidding process and the first Mining Plan including Progressive Mine Closure Plan was got

		approved by the competent authority Department of Mines and Geology, Haryana vide letter no. Vide letter no.. DMG/HY/MP/Jainpur-2/7079 dated 20.7.2015 **(Annexure-)** and The Environment Clearance was obtained, lease deed was executed and registered by applicant **Annexure-)**
a)	**Name of mine**	Jainpur-2 Block sand mine
b)	**Mine code**	-
c)	**Location of mine/ area Village, Tehsil, Police station – Post office District, PIN**	Village –Jainpur Tehsil - Rai Distt. Sonipat Haryana
d)	**Details of applied/ lease area with location plan-**	Granted Lease area is 44.40 hectare (Location plan is enclosed as **(Plate-1.)**
	Forest (Specify)- Protected- Notified-	There is no forest land, The lease area falls in gram Panchyat land, A Govt. Land.
	Non Forest a) Govt.waste land b) Grazing Land c) Agriculture land d)Others (specify)	44.40 Govt land) Nil NIL NIL 44.40 hect.

	Total area	
e)	**Area**	44.40 hect. Jainpur -2
	Khasra no	Detail of land covered in the area notified by Govt. of Haryana are as under- Mining contract of Jainpur -2 sand unit over an area of 44.40 hect. Is containing two mining blocks namely (1) Jainpur-2 River Bed block (2) Jainpur -2 out side river block **(1) Jainpur-2 River Bed block** 214/5,214/6,214/7,214/8,214/9,214/10,214/11,214/12 40//6,7,8,9,10min,11min,12min to 18 min,19min,22min,23,24,25, 41//9,10,11,12,19,20,21,22 43//1,2,3,8,9,10,11,12,13/1,18/1,19,20,21,22,23 44//2min,3to 7 min, 8min,13min , 14 to min16 min,17 min,18min,24 min, 25min 72//4min,5,5,15,16 min,25min 73//1,2,3,8,9,10,11,12,13,18,19,20,21,22,23 75//1min,2,3,8,9,10min,12 min,13min **2. Out side river block** 62//,8,9/1,9/2,12/11,12/2,13,17,18/1,18/2,19,20,21/22,23/1,23/2,24 86//1,2,3/1,3/2,4,7,8,9,10/1,10/2,11,12,13,14,,18,19,20
		44.40 Hectares
f)	**Whether the area falls under Coastal Regulation Zone(CRZ)? If yes, details Thereof**	NA
	Existence of public road/railway line, if any nearby and approximate distance-	Lease area is well connected with a metallic road from Sonipat ,railway station is 16 kms from the mining lease area. Dehli ISBT is about 40 Kms and Sonipat city is 15 kms district head quarter, UT head quarter is Chandigarh is located 180kms north west of lease area .All nearby villages like have police station ,Electricity and education facilities

c) Attach a general location map showing area and access routes. It is preferred that the area be marked on a Survey of India topographical map or a cadastral map or forest map as the case may be. However, if none of these are available, the area may be shown on an administrative map.



S.N	Date and reference of earlier approved MP/SOM				
	Type of document & rule under which prepared	**Approval letter no & date**	**Lease area for which approval given (ha)**	**Date of Approval**	**Proposal from – to**
a)	Mining Plan under Rule Haryana Miner Mineral Concession, Storage, Transportation and prevention of illegal Mining rules -2012) For fresh grant of lease area.	Vide letter no. DMG/HY/MP/Jainpur -2/7079 dated 20.7.2015 **(Annexure -5)**	44.40 ha.	20.7.2015	5 Years
b)	**Modified Mining plan**	-	Not applied	-	-
c)	**Details of last modifications if any (for approved MP/SOM, indicating date of approval, reason for modification the previous approved period) of**				
	First mining plan was approved by Department of mines and geology Vide letter no.. DMG/HY/MP/Jainpur-2/7079 dated 20.7.2015 for 16.00 MTPA of ROM.				
	REVIEW OF EARLIER APPROVED PROPOSAL				

	Items	Proposals	Achievement	Remarks
a)	Exploration by Bore holes / Trail pits	Replenishment study of river sediment sand, gravel was proposed at the time of grant of lease and subsequently at the commencement of next	As per detailed study of lease area conducted in 2016 it was established that total 1751800	No deviation observed

	/ Trenches on Geological axis	scheme. as area falls in **river bed** and out side blocks	Tons geological reserves are available and 1600000 Ton are mineable reserves available and a mine of 1440000 TPA sand mine was planned in River bed block .	
b)	Number of sand pits proposed for production	Mining was proposed to be carried out from the identified and earmarked block year wise	Sand Mining was carried out as per year wise proposals	No deviation observed
c)	Location of Development	Proposed to be carried out in river bed for 14,40000 Tons per year	The mining was continuing from North to South direction as proposed in the approved Plan.	No deviation observed
d.	**Top Soil**			

	Year	**Proposed**	**Achievement*** March 2021	**Remarks**
	2016-17	0	0	No top soil was observed and recovered from the river bed .
	2017-18	0	0	
	2018-19	0	0	
	2019-20	0	0	
	2020-21	0	0	

	Total	**0**	**0**	
e)	**Quantity of overburden (T)**			
	Year	**Proposal**	**Achievement** March 2021	**Remarks**
	2016-17	0	0	No overburden was estimated in past plan period and no over burden was recovered as such no deviation is found
	2017-18	0	0	
	2018-19	0	0	
	2019-20	0	0	
	2020-21	0	0	
	Total	0	0	
f)	**Quantity of Reject**			
	Year	**Proposal**	**Achievement** March 2021	**Remarks**
	2016-17	0	0	All sand recovered was homogenous and found useful, thus no reject was there. Hence no deviation was found
	2017-18	0	0	
	2018-19	0	0	
	2019-20	0	0	
	2020-21	0	0	
	Total	0	0	
g)	**Quantity of ROM production in Tonnes** *March 2021			
	Year	**Proposal Tons**	**Achievement**	**Remark**
	2016-17	1600000	138028	Due to fluctuation in demand in construction industry the quantity of ROM varied. No deviation is considered
	2017-18	1600000	160000	
	2018-19	1600000	0	
	2019-20	1600000	4924	
	2020-21	1600000	236155.02 Continue up to	
	Total	8000000	**539107.02**	
h)	**Production of Saleable Sand in tonnes** *March 2021			
	Year	**Proposal**	**Achievement**	**Remark**

	2016-17	1600000	138028	Due to fluctuation in demand in construction industry the quantity of ROM and OB varied. No deviation is considered ,Overburden was back filled and reclaimed thus no deviation found
	2017-18	1600000	160000	
	2018-19	1600000	0	
	2019-20	1600000	4924	
	2020-21	1600000	236155.02 Continue up to	
	Total	8000000	**539107.02**	

i)	**Layout parameters**			
	Item	**Proposal**	**Achievement ***	**Remark**
j)	Location of topsoil dumps	Top soil generation was not ancipated thus a location for storage of top soil was not planned	No location was planned for top soil storage	No deviation found
k)	Stacking of mineral	Sand and Gravel was not proposed to be directly loaded in to trucks and location for storage of mineral was not planned	No location was planned for mineral stacking	No deviation found
l)	Location of OB & mineral reject dumps	No reject was anticipated	Total mineral as sand and gravel was found usefull and OB was backfilled and reclaimed	No deviation found
m)	Area under backfilling of mined out area	The mined out area was proposed to be back filled by replenishment every year .	It was ensured mined out area is back filled with OB by leaving a barrier after every 50 meter and it was achieved every year a regular back filling	No deviation found

n)	Plantation /Afforestation	500 plants per year were proposed along the river bank and other feasible sites during five years plan period	Total 500 no. of saplings were planted in plan period for development of green belt of 7.5 meter wide and office area.	No Deviation found
o)	Green belt	A margin of 7.5 meter was proposed to be left as safety barrier	Green belt margin7.5 meter is left for plantation except the main course of river .	No deviation found
q)	Number of settling ponds	Not proposed	None	No deviation found
r)	Processing of mineral	Sand as ROM was not proposed to be screened and sized as found directly saleable	No screening / sizing facility was installed	No deviation is found
s)	UPL limit	It was proposed to work 3 meter above the water level	Complied to work up to UPL limit	No deviation is found

The detail of the land covered in the lease area notified by Haryana Govt.on 27.4.2015 and subsequent corrigendum dated 19.5.2015 are described in above para .Coordinates of the lease area and important boundary pillars are as under-

Co-ordinates of important boundary pillars is as under

Co-ordinates of the lease area as under

River Bed

A)	North 29° 03' 56''	East 77° 09' 36''	(North, West end)
B)	North 29° 03' 56''	East 77° 09' 56''	(North, East end)
C)	North 29° 03' 24''	East 77° 09' 59''	(South, East end)
D)	North 29° 03' 24''	East 77° 09' 54''	(South, West end)
E)	North 29° 03' 30''	East 77° 09' 49''	(South, South-West)
F)	North 29° 03' 37''	East 77° 09' 48''	(Middle)
G)	North 29° 03' 45''	East 77° 09' 45''	(North, North-West)

Outside River Bed

North west end = N 29° 03' 39'' to E 77° 07' 35''
North east end = N 29° 03' 39'' to E 77° 07' 40''
South east end= N 29° 03' 23'' to E 77° 07' 40''

North west end = N 29° 03' 23'' to E 77° 07' 32.5''

DETAILS OF APPROVED MINING PLAN / SCHEME OF MINING (if any)

r) REVIEW OF FINANCIAL ASSURANCE

In present document past five year proposals of Mining scheme with PMCP for Top soil, ROM production ,Overburden, mineral reject, land use, Plantation, environmental management have been discussed considering capacity of 16.00 Million ton per annum for past five years proposals (2016-2021) under as per Rule 70(1) and 77 (2) of Haryana Minor Mineral Concession, Stocking, Transportation of Minerals and Prevention of Illegal Mining Rules - 2012. Item wise details are as under-

S.No.	Item Details	Proposed for use	Actual area as on date March 2020	Remarks
i.	Area under Mining	34.40	12.0	12.0 hect. per year area has been broken area for mining and rest area is as unused
ii.	Storage of top soil	0	0	No Soil generated during the last 5 years, plantation was done over the road , village and green belt area.
iii.	Waste dump site	0	0	No waste generated during last 5 years no stacking was required
v.	Mineral Storage	0	0	On account of direct loading no mineral stock was proposed at the mine
vi.	Infrastructure, Work shop , Admin building, Weigh bridge etc	0	0	Office and other infrastructure facilities are already made outside lease
vii.	Roads	0	0	-
viii.	Railways	0	0	-
ix.	Tailing Pond	0	0	-
x.	Effluent Treatment	0	0	-

	Plant-			
xi.	Mineral Separation Plant	0	0	-
xii.	Township area	0	0	-
xii	Green belt	4.01	4.0	-
Xiii	Others (Undisturbed)	0	0	-

	Give status of compliance of violations pointed out			
Sr .no	**Date of inspection**	**Violation date**	**Rule violated**	**Compliance status**
1.	Mining was done as per Haryana Minor Mineral Concession stocking and transporting of minerals and prevention of illegal mining rules -2012 and MMDR Act. No violation was pointed out by State and Central Authorities			
s	**Indicate and give details of any Suspension /Closure/ Prohibitory order issued by any Government agency under any rule or Court of law** The mining lease of the applicant was terminated by the order of DGMG dated 4.12.19 for the nonpayment of dues and appeal was filed before principal secretary to set aside the order and restoring the mining rights .The relief was granted by Principal secretary on the stand to deposit the dues .In view of interim orders dated 30.5.2019 in CWP 15499of 2019 the firm deposited an amount of 1.84 crores with interest to restore the mining rights .			
t	**In case the MP/SOM is submitted under rules 9 and 10 of the MCDR'88 or under rule 17(2) of the MCR'2016 for approval of modification, specify reason and justification for modification under these rules.** No Modification was sought by applicant during the past plan period			

PART – A

Briefly describe the Topography, drainage pattern, vegetation, climate, rainfall data of the lease area

PHYSIOGRAPHY, DRAINAGE AND CLIMATE

Sonipat district of Haryana located in north-eastern part of Haryana State and lies between 29° 55': 30° 31' north latitudes and 77° 00': 77° 35' east longitudes. The district is bounded, in north by Himachal Pradesh, in the east by Uttar Pradesh, in west by Ambala district, in south by Karnal and Kurukshetra districts. Total geographical area of the district is 1768 sq.km and comprises 4% of total area of State. Yamuna Nagar district is divided into one sub-division and six-development blocks viz. Bilaspur, Chachrauli, Jagadhri, Mustafabad, Radaur and Sadhaura. Sonipat is thickly populated district and density of population is 589 persons per Km2, which is higher than State average of 478 persons per Km2. The population of the district is 12, 14,162 as per 2011 census 801337 persons

PHYGIOGRAPHY

The district is divided into five Physiographic units

- Siwaliks
- Dissected Rolling Plains
- Interfluvial Plains
- Active And Recent Flood Plains
- Relict Plains

a) Siwaliks hills –

Siwalik hill ranges occupy the northern fringe of Yamuna Nagar district and attain the height up to 950m AMSL. The hills are about 500m high with respect to the adjacent alluvial plains. These are characterized by the broad tableland topography that has been carved into quite sharp slopes by numerous ephemeral streams come down to the outer slopes of the Siwaliks and spread much of gravels boulders, pebbles in the beds of these streams.

b) Dissected rolling plains (kandi belt) - A dissected rolling plain in the northern parts of district is a transitional tract between Siwaliks hills and alluvial plains. It is about 25 km wide and elevation varies between 250 and 375m AMSL.

c) Interfluvial plains - This tract is part of higher ground between Ghaggar and Chautang and includes high mounds and valleys. In general, the slope is from northeast to southwest.

d) Active and recent flood plains - This plain is narrow tract along river Yamuna in the district.

e) Relict wedge plain - This is almost in alignment to the surface water divide between the westward flowing Ghaggar and eastward flowing Yamuna River.

DRAINAGE

The River Yamuna, which borders the district in the East, is the main river in the district. The district is drained by drain no.8, which was constructed to take out excess monsoon runoff from uplands to River Yamuna. The areas east of upland plains are more prone to flooding because of its low-lying nature.

Irrigation

Irrigation in the district is done by surface and ground water as well .Around 42% of the area is irrigated by tubewells and rest of the area is irrigated by canals. About 96% area has been irrigated with respect to net sown area in the district. The district has a high irrigation intensity of 159%. About 91% area of the district is gross area irrigated with respect to total cropped area. The area, which is irrigated by surface water lies towards west where ground water is mostly saline while groundwater irrigation is maximum in the eastern parts adjoining the Yamuna river. In this part of the district, ground water is fresh. The canal irrigation is mainly done by West Yamuna Canal system.

CLIMATE

The climate of the district is characterized by the dryness of the air with an intensely hot summer and a cold winter. The cold season starts by late November and extends to

about the middle of March. It is followed by hot season, which continues to about the end of June when the southwest monsoon arrives over the district. The period from July to September is the southwest monsoon season

Rainfall: The normal annual rainfall of the district, based on the record for the period 1901-1980 is 567 mm recorded in 30 rainy days in a year. There is no meteorological observatory in the district, so the climatological data of the nearby observatory at Delhi has been taken as representative of the climatological conditions of the district. About 76% of the annual rainfall is recorded during the southwest monsoon from June-September. July is the wettest month of the year with 7.5 rainy days and 169 mm rainfall. During the period 1901-80, deficient to scanty rainfall was recorded in 18 years. The probability of occurrence of rainfall in the range 400- 700 mm is 0.65.

January is the coldest month with mean daily maximum temperature 21.3o C and mean daily minimum temp 7.3oC. May is the hottest month with mean daily maximum temp 26.6oC. In May and June, the maximum temperature sometimes reaches about 47oC.

HYDROGEOLOGY

Ground water occurs in alluvial sand, silt, kankar and gravel, which form potential aquifer zones. Depth to water level during pre-monsoon varies from 1.57 -

24.84 mwhile during post-monsoon it varies from 0.64- 22.46 m. The depth to

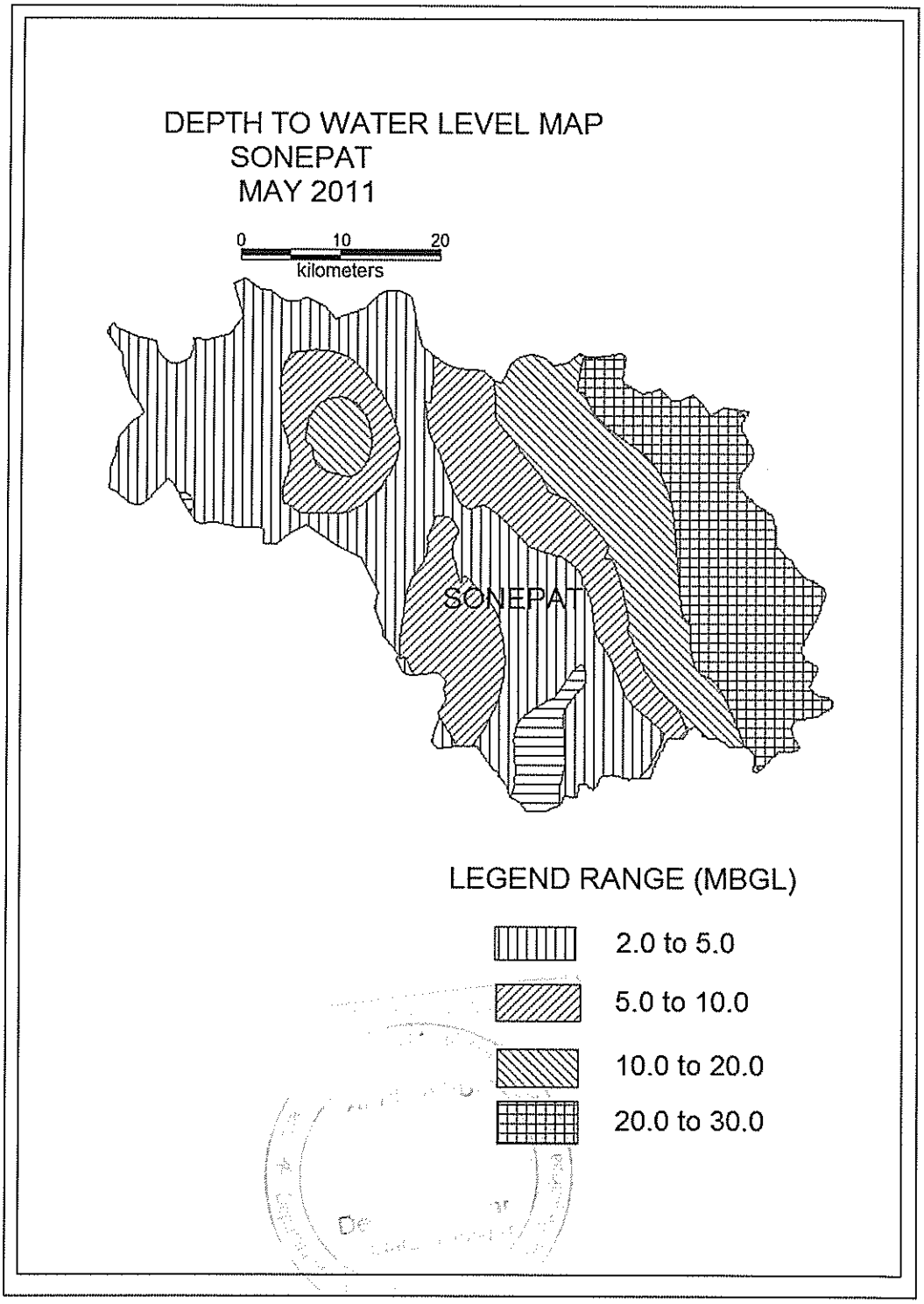
water level lies within 5 – 20 m below the land surface in most parts of the district. It rests between 2 to 25m deep in the eastern side and 2 to 10m in the north western parts of the district. Only in small patches in the Rai block, water table is deeper having range of 20m to 40m. Water table elevations range from 230 to 220m amsl and the general ground water flow is from northwest to southeast. In general, the water table has declined all over the district over the past decade. During past oen decade the district has recorded a fall of less than 1m to 7m .The decline was 2 to 4m in most parts of the district. Long term water level fluctuations indicate rise of water level over a period of last one decade in Mundlana, Kathura, K harkhoda and Rari blocks. The trend of rise of water level is in the range of 0.05 to 0.32m/year. The trend of decline of water level is 0.05 to 0.95m/year.

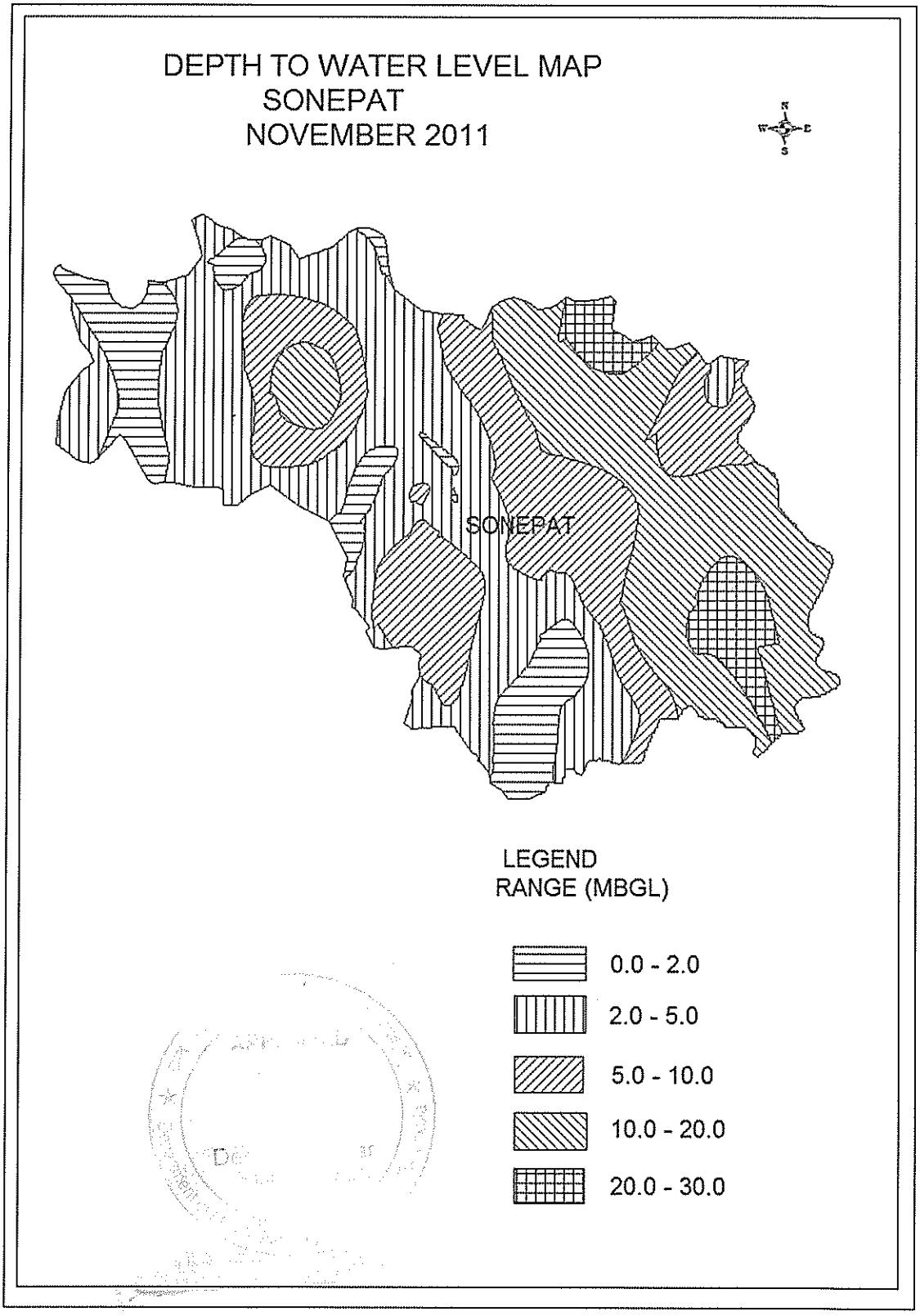
Central Ground Water Board has drilled 15 wells under ground water exploration programme; 8 are exploratory wells, 5 are piezometers and 2 are slim holes. Out of 8 boreholes drilled for ground water exploration, 7 were abandoned due to poor quality of ground water or due to inadequate thickness of permeable granular zones. Granular zones exist down to 460m depth i.e. to depth explored. However, the chemical quality of ground water is not fresh in deeper horizons in most parts of the district and in shallow horizons; in some parts. In general, the quality of ground water in shallow dugwell zones is fresh in the eastern and north, northwest parts and gradually gets deteriorated in the western and southwestern parts. Also the deep zones below 150m depth contain brackish / saline ground water. A number of shallow tubewells exist in all the blocks - more in number in Sonipat, Rai and Ganaur block and these tap water bearing zones in the shallow unconfined aquifer group. These tubewells yielded 300 to 600 lpm for moderate drawdowns. Detailed test drilling has established occurrence of three distinct aquifer groups, down to 450m depth in Upper Yamuna Basin which includes Sonipat district.Aquifer group-I which was in unconfined state extends from water table down to 70m depth. A tubewell located at Khera in the eastern part of the district and tapping this aquifer group-I, yielded 4540 lpm for about 7.5m of drawdown. Aquifer characteristics at Khera site were - Transmissivity : 2340m2/day ; Lateral Hydraulic conductivity - 36m/day and specific yield - 2.15 x 10-1 (21.4 -I contains fresh water in eastern parts of the district. Aquifer group-II which is under semi- confined / confined state occurs in the depth range of 90 to 200m and has not been tested for its yield and aquifer characteristics since the formation water is saline. Aquifer group-III which too is under confined state occurs in the depth range of 250 to 400m and contains brackish saline ground water.

.DEPTH TO WATER LEVEL

The depth to water level during pre-monsoon period in the district ranges between 2.07m bgl at Choli and 15.32m bgl at Khizrabad. However, in major part of district water level ranges between 5.0m bgl and 10.0m bgl. The Depth to water level during pre-monsoon period in the district ranges between 1.57m bgl at Choli and 18.41m bgl at Bahadurpur. However, in major part of district water level ranges between 5.0m bgl and 15.0m bgl. Appraisal of water level data of May and November reveals that some

parts of the district have experienced water level decline whereas in other parts rise in water level has been recorded. Maximum decline of –0.43m has been observed in area around Khizrabad and maximum rise of 0.39m was recorded at Sabri village. During





(Source: District Groundwater Brochure CGWB).

PART –A GEOLOGY AND EXPLORATION:

3.0 Brief descriptions of Regional Geology with reference to location of lease/applied area.

3.1 GEOLOGY OF THE AREA

i) Regional Geology

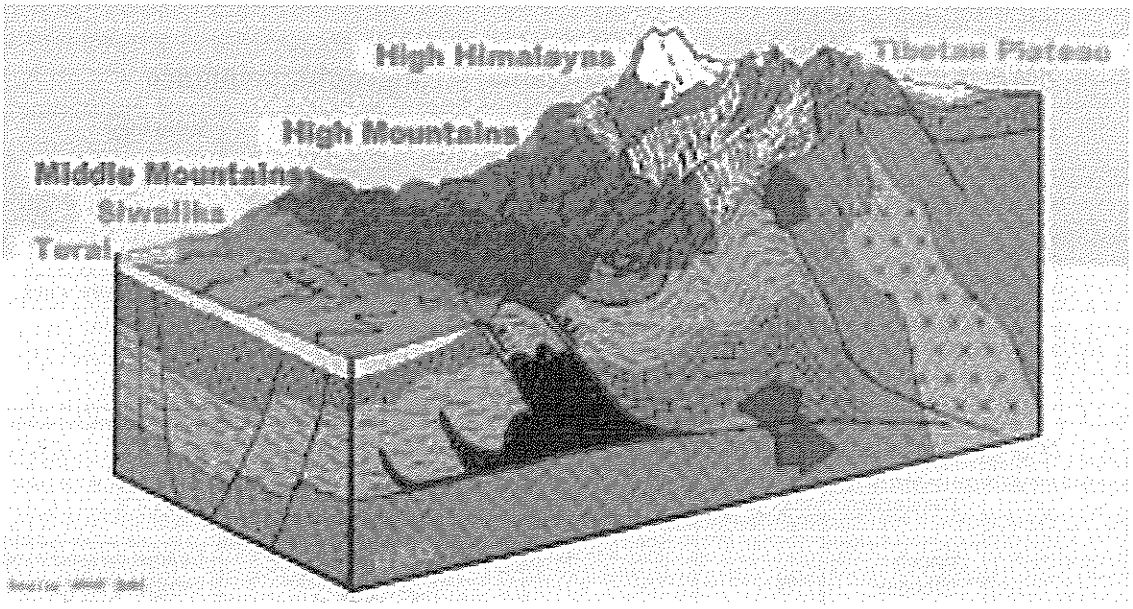
The north-eastern and central part of Haryana is predominantly characterized by sedimentary litho logy in the Sub-Himalayan zone comprising Subathus, Dagshais, Kasaulis and Siwaliks. A general Regional stratigraphic sequence in the area is given in Table.

Table: Regional stratigraphic sequence

Age	Super group	group	Formation	litho logy
Holocene			Newer alluvium and Newer Aeolian Deposits	Gravel, Sand, silt, clay, limesand, gypsum
Lower to upper Pleistocene			older alluvium and Older Aeolian Deposits	Gravel, grey sand, silt, clay, brown sand, calcrete
Lower to Middle Pleistocene	S I W A L I K	Upper Siwalik	Boulder Conglomerates formation	Conglomerate, sandsand, silt, clay
Upper Pliocene			Pinjore Formation	Coarse grit,red sand sand and clay, conglomerate
			Tatrot Formation	Friable Sandsand and variegated clay
		Middle Siwalik	Dhokpathan Formation	Brown sandsand and orange clay
Middle Miocene			Nagri Formation	Hard grey sand , muds and and minor shale
		Lower Siwalik	Nahan Formation	Coarse grity ,clay and red sand sand often calcareous, brownish shale with lignite lenticles, greenish white Quartzite
Lower			Kausauli Formation	Grey and green sand,green shale

Miocene		Sirmur		and grey clay
			Dagsai Formation	Purple and green sand sand, deep red gritty,clay,white andsand with ferruginous concretions
Upper Eocene			Subathu formation	Sandsand with gritu clay. Impure fossiliferous limesand calcareous slate,greenish shale and dark brown quartzite
Pre-proterozoic			Tunda pathar	Thickly bedded ,sstromatolite limesand with carboniferous shale and quartzite

A schematic diagramme of Himalayas showing higher, middle and lower Himalayas including Shiwaliks is shown here below-



3.2 LOCAL GEOLOGY

The litho units encountered in the river bed and surrounding areas belongs to the Shivalik super groups. The sediments are river borne and has deposited in the riverbed and the flood plains. The different formations of the area belong to Shivalik Super group and are a mixture of boulders, pebbles, sand, silt and clay. The following sequences have been observed in the area.

1. Soil/Alluvium

2. Sand
3. Gravel
4. Boulder

There is no clear demarcation between the litho units. They have been deposit in a mixed form. The Litho- units exposed in the flood plains belong to Shivalik Super-Group. The mineral Boulders, Gravel and sand have formed by weathering of rocks and then deposition on the flood plains of the rivers originated from the Shivaliks. These have been washed by rainwater during rainy season and deposited in flood plains and river beds in the form of boulders, gravels and sand of different sizes and shapes. These minerals are sorted by screening. The max depth of the minerals is not known.

Soil/alluvium varying in thickness from 0.5 -1.50m (Av.1.0mts) constitute the top horizons in the area suitable for agriculture. Yamuna River meanders through the area exposing the alluvium and soil at the banks. Sand is found in the river bed. Sand is deposited up to great depths. This bed is presently dry and water flows only during the rainy season The Sand exposed in the River bed of Yamuna and surrounding areas is the product of the deposition of the sediments brought and deposited in the flood plains of River Yamuna. These sediments are of recent geological formation. The litho-units exposed within the river and surrounding areas have formed as water borne sediments brought by flood water during rainy season every year and deposited in riverbed and flood plains. Geological map and section are enclosed as Plate – 03)

3.2.1.3 DESCRIPTION OF FORMATION

The description of Sand found in the lease area as minor mineral has been as under:

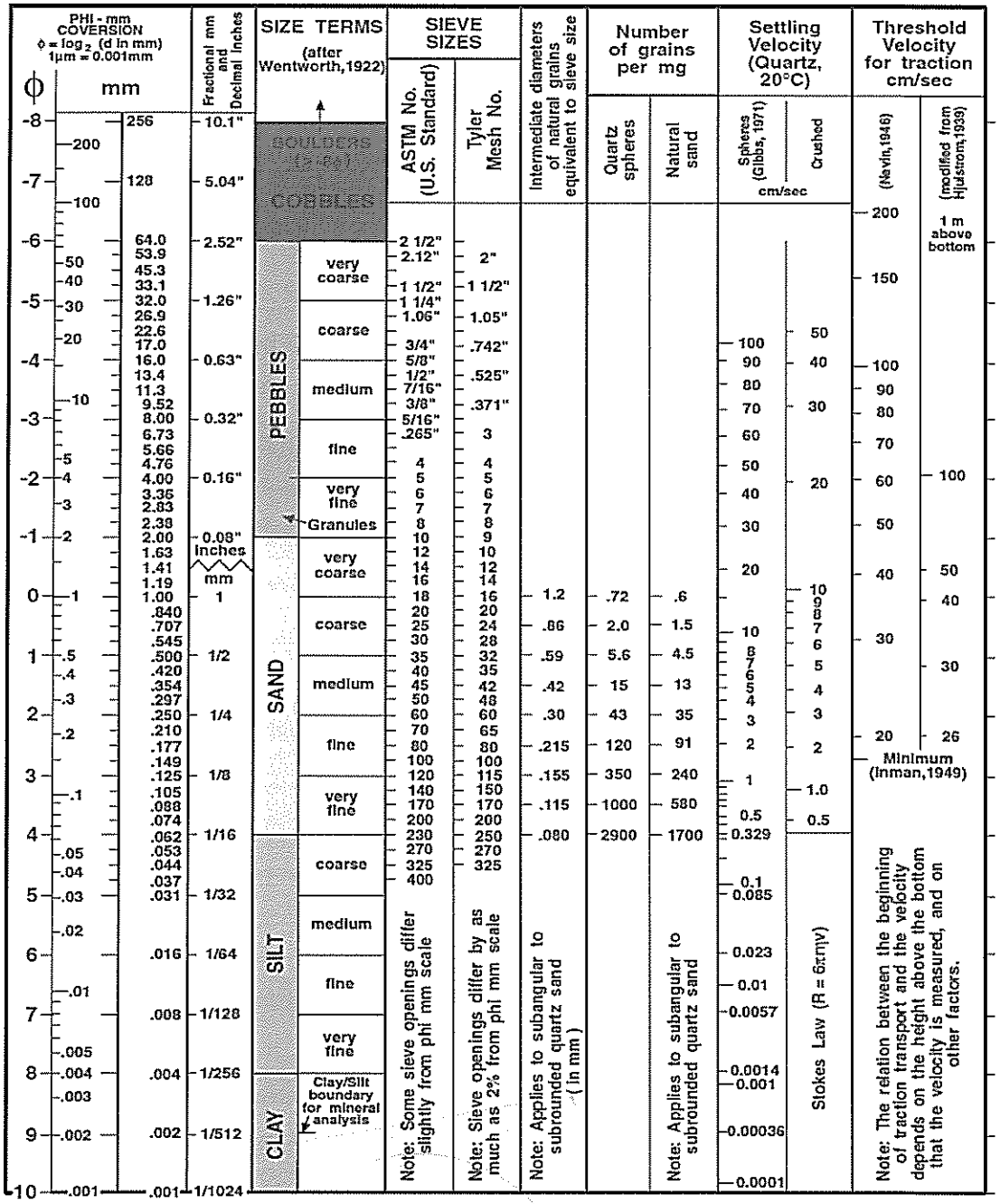
3.2.2 Sand

Sediments of various sizes and in mixed form are predominantly deposited in the flood plains of River Yamuna and its tributaries. There is no perfect classification between boulders, cobbles, pebbles and sand. They are deposited in a mixed state.

The classification is done by grab mining and the sediments are passed through different sieves in the screening plants.

Sediments of various sizes and in mixed form are predominantly deposited in the flood plains/river bed and there is no perfect classification between sediments. These may be called as coarse sand, medium sand and fine sand. The term sand is used to denote an aggregate of rock grains greater than 1/16mm and less than 2 mm in diameter mineral.

Classification of Sediments (Wentworth-Grain Size-chart)



3.2.5 PHYSICAL & CHEMICAL CHARACTERISTICS OF MINERAL

Technically, the size of boulders varies from 2.52 inches to up to 10.1 inches & pebbles range from 0.08 inches to 2.52 inches. Sand is merely a size category. Sand is particulate matter that's larger than silt and smaller than gravel. Different specialists set different limits for sand: Engineers call sand anything between 0.074 and 2 millimeter, or between a U.S. standard #200 sieve and a #10 sieve.

Soil scientists classify grains between 0.05 and 2 mm as sand, or between sieves #270 and #10.Sedimentologists categorise sand between 0.062 mm (1/16 mm) and 2 mm on the Wentworth scale, or 4 to −1 unit on the phi scale, or between sieves #230 and #10. In some other nations a metric definition is used instead, between 0.1 and 1 mm. From a geological viewpoint, sand is anything small enough to be carried by the wind but big enough that it doesn't stay in the air, roughly 0.06 to 1.5 millimeters. It indicates a vigorous environment.

COMPOSITION AND SHAPE OF MINERALS

Most boulders, gravels and sand is made of quartz or its microcrystalline cousin chalcedony, because that common mineral is resistant to weathering. The farther from its source rock sand is, the closer it is to impure quartz. But Yamuna sands contain quartz grains, tiny bits of rock (lithics), or dark minerals like lime sand and ferruginous concretions.

The size of the sediments is variable. The grains whether small or large are rounded in shape. Sand is grey, brown in color, coarse to fine grained. The present deposits are of good quality and can be used for building industries. There is no other use of this material.

ORIGIN & CONTROL OF MINERALISATION (ANNUAL REPLENISHMENT OF MINERAL IN RIVER BED/FLOOD PLAINS AREA VIS-À-VIS SEDIMENTATION)

Sedimentation, in the geological sciences, is a process of deposition of a solid material from a state of suspension or solution in a fluid (usually air or water). Broadly defined it also includes deposits from glacial ice and those materials

collected under the impetus of gravity alone, as in talus deposits, or accumulations of rock debris at the base of cliffs. The term is commonly used as a synonym for sedimentary petrology and sediment logy.

Sedimentation is generally considered by geologists in terms of the textures, structures, and fossil content of the deposits lay down in different geographic and geomorphic environments.

The factors which affects the "Computation of Sediment":

a) Geomorphology & Drainage Pattern : The following geomorphic units plays important role :

- Structural Plain
- Structural Hill
- Structural Ridge
- Denudation Ridge & Valley
- Plain & Plateau of Gangetic plain
- Highly Dissected pediment
- Un dissected pediment

b) Distribution of Basin Area River wise (Area in Sq. Km or Sq. Miles)

c) Drainage System/Pattern of the area (Drainage Density = ...Km/Sq. Km of Yamuna River

d) Rainfall & Climate : Year wise Rainfall data for previous 07 years of Yamuna Basin/River

e) As per Dandy & Bolton study "Sediment Yield" can be related to

i) Catchment Area and

ii) Mean Annual Run-off

Sand is an essential minor mineral used extensively across the country as a useful construction constituent and variety of other uses in sports, agriculture, glass

making (a form of sand with high silica content) etc. It is common knowledge that minerals are non-renewable but this form of mineral naturally gets replenished from time to time in a given river system and is very much interrelated to the hydrological cycle in a river basin.

The Rivers originating from the Himalayas bring with them lots of aggregate materials whereas as they move downstream, only finer elements / minerals like sand are found in abundance. River Yamuna near Dakpathar barrage leaves Uttarakhand and enters Himachal Pradesh.

The Yamuna river is the biggest tributary of the river Ganga in North India. Its source in the Yamunotry glacier at an elevation of 6387 mtrs on South western sides of Banderpooch crests in the lower Himalayan ranges. The overall span of the Yamuna river is 1376 Kms (855 miles) with catchment area of 366223 square km (141,399 square mile). This encompasses 40.2 % of the whole Ganga valley, prior to joining Ganga at Triveni Sangam in Allahabad (UP)

Itinerary of Yamuna River:and its tributries

The river passes through many states such as Uttrakhand, UP, Haryana, going across to HP and then Delhi. With yearly discharge of around 10,000 cubic billion meters (cbm) and consumption of 4400 cbm (of which irrigation comprises 96%), the river represents above 70% of water provision of Delhi. Yamuna water are fairly good quality for its entire span from Yamunotri in Himalayan ranges to Wazirabad in Delhi, the length of which is around 375 Kms.

The origin of Yamuna is situated in the Yamunotri glacier at an elevation of 6387 mtrs on SE sides of Banderpooch crests, which are located in the Mussoorie range of lower Himalayan range in Uttrakashi district of Uttrakhand, to the North of Haridwar. From this place Yamuna runs to South around 200 Kms across the Shivalik mountain ranges and lower Himalayan ranges. A significant portion of its beginning of Drainage basin (with total area of 217.00 square km) is situated in HP

and a major tributary sapping the upper drainage basin in the Tons, which is also biggest and most extensive tributary of the Yamuna. Other tributaries in the area are the Rishi Ganga, Giri, Hanuman Ganga, Kunta & Bata, which sap the upper drainage basin of the huge Yamuna river. Subsequently, the river moves down the terrains of Doon basin at Dak Pathar close to Dehradun, in this place water is redirected into a channel for the purpose of electricity generation. Once it goes across the sikh religious place of Ponta Sahib, the river arrives at Tajewala in the Yamunanagar district of Haryana where a dam was constructed in 1873. This dam is the origin of the two major channels or water courses – Eastern Yamuna Canal and Western Yamuna Canal and both drain in UP & Haryana. The Western Yamuna Canal (WYC) traverses Karnal, Yamunanagar and Panipat prior to arriving at the Haiderpur water treatment plant, which provides a portion of municipal water provisions of Delhi. The Yamuna also forms natural boundary between the states of Uttrakhand & HP and also amid the states of UP and Haryana. Together with the Ganga to which it flows almost parallel once it meets the Indo-Gangetic plateau, the biggest Alluvial productive area in the World, it forms the Ganges-Yamuna Doab are stretched across 69,000 square Km which is 33% of the whole area.

Table of Drainage Basin area of River Yamuna (square KM/square mile) with % of Drainage Basin

1. HP : 5799/2240 (1.6)
2. UP & Uttrakhand :74208/142 (21.50)
3. Rajasthan :102883/39739 (29.80%)
4. Haryana : 21265/8214(6.5%)
5. Delhi ; 1485/574(0.4%)
6. MP : 14023/5416 (40.6%)

d.) Name of prospecting /exploration agency-

Department of Mines and Geology Haryana has identified potential segments in yamuna river near yamunanagar district found depositional sites for sand. Accordingly department carved sand blocks for auction. Finding it low cost mineral and useful for common man No detailed exploration was proposed in the area .

As per environmental clearance condition no.19 the project proponent will submit annual replenishment studies by an authorized agency and in case the increment is lower than the approved rate of production than the mining activity shall be decreased /stopped accordingly till the replenishment is completed. Accordingly the project proponent appointed t M/S Vardan Environet (A NABET accreditiated organization) Consultant to conduct Replenishment studies following MoEF CC guide lines of January ,2020 .

The study period was during the Pre-monsoon: 15th to 20th April, 2021 and Post-monsoon: 18th to 21stSeptember, 2020 using following Methodology and approach for studies

Approach & Methodology Followed for Replenishment Study:-

a) Pre-monsoon survey of River bed with the help of GPS and Unmaned Artificial Vehicles (UAV's)/Drone fitted with advance camera

b) Grid pattern 30 m x 20 m (30 m along the length of the river and 20 m along width of the river) or part thereof.

c) To draw pre-monsoon contour map (Base map considered as per approved mining plan)

d) Post-monsoon survey of River bed with the help of GPS and unmanned Drone

e) Same Grid pattern (30 m x 20 m) or part thereof was considered for survey.

f) To draw post-monsoon contour map (Base map considered as per approved mining plan)

g) To draw composite sections of Pre and post monsoon maps. This will determine the depth and volume of sand replenished.

h) Finally to calculate the volume of sand with grid pattern of 30 m x 20 m multiplied by depth of replenishment.

i) The tonnage of replenishment will be volume of sand multiplied by density of sand (which is 2 T per Cubic m)

e.) Details of prospecting/exploration already carried out:

1) Number of pits and trenches indicating dimensions, spacing etc along and across the strike/foliation with reference to geological plan.

Detail of Replenishment studies are places **Annexure -13**

2.) No. of bore hole indicating type(Core/RC/DTH) diameter, spacing inclination, ,collor level, depth etc. with standard borehole logs duly marked on geological plan and sections

No Bore hole/ DTH /RC/Augur holes are required in view of low priced mineral in shallow deposits.

3) Details of samples analysis.

The Sand deposits are mainly consisting of quartz- feldspar and other flaky minerals constituting mainly silicates thus regular sample of the area are not required in view of low cost mineral as per MEMC Rules 2015,

4.) Expenditure incurred in various prospecting operations.

No expenditure incurred on exploration as mineralization is exposed very well and also further exposed on account of mining pit .

f.) The surface plan of the lease area may be prepared on a scale of 1: 1000 or 1: 2000 with contour interval of maximum of 10 m depending upon the topography and size of the area duly marked by grid lines showing all features indicated under Rule 32(1) of MCDR 2017.

Updated Surface plan dated 10.4.2021 is enclosed as **Plate 3.**

g.) For preparation of geological plan, surface plan prepared on a scale of 1: 1000 or 1: 2000 scale specified under para 1.0 (f) of Part A of the format may be taken as the base plan. The details of exploration already carried out along with supporting data for existence of mineral, locations proposed exploration, various litho-units along with structural features, mineralized/ore zone with grade variation if any may be marked on the geological plan along with other features indicated under Rule 32(2) of MCDR 2017.

Surface Geological plan is enclosed as **Plate-4.**

h.) Geological sections may be prepared on natural scale of geological plan at suitable interval across the lease area from boundary to boundary.

Surface Geological sections are enclosed as **Plate-4.**

i.) Broadly indicate the future programme of exploration with due justification(duly marking on Geological plan year wise location in different colours) taking into consideration the future tentative excavation programme planned in next five years as in table below: -

The area is fully exposed along the river bed section with the sand resources and also exposed contemporary to mining in past years. Sufficient data are available there to prepare the mining scheme for next five year thus, No additional exploration is proposed in the area

j.) Total Geological, Mineable/ Recoverable Reserves & Resources as per UNFC classification

Proved Reserves

Replenishment Survey by Unmaned Artificial Vehicles (UAV's)/Drone survey technology reveled incremental in reserves estimated approximately 14,58,143.64 MT

per annum are shown in study report as **Annexure 13**

- Following special conditions those are applicable for excavation of minor mineral(s) from river beds in order to ensure safety of river-beds, structures and the adjoining areas are considered while calculating the reserves of this area:

- (i) No mining would be permissible in a river-bed up to a distance of five times of the span of a bridge on up-stream side and ten times the span of such bridge on down-stream side, subject to a minimum of 250 meters on the up-stream side and 500 meters on the down-stream side;

- (ii) There shall be maintained an un-mined block of 50 meters width after every block of 1000 meters over which mining is undertaken or at such distance as may be directed by the Director or any officer authorized by him;

- (iii) The maximum depth of mining in the river-bed shall not exceed three meter from the un-mined bed level at any point in time with proper bench formation;

- (iv) Mining shall be restricted within the central 3/4th width of the river/ rivulet;

- (v) In case of areas permitted for excavation outside river/rivulets i.e. areas adjoining to rivers/rivulets, no mining shall be permissible in an area up to a width of 500 meters from the active edges of embankments in case of river Yamuna, 250 metres in case of Tangri, and Ghaggar river and 100 meters on either side of all other rivers/ rivulets;

(vi) Any other condition(s), as may be required by the Irrigation Department of the state from time to time for river-bed mining in consultation with the Mines & Geology, a safety margin of two meters (2m) shall be maintained above the ground water table while undertaking mining and no mining operations shall be permissible below this level unless a specific permission is obtained from the competent authority in this behalf.

vii) The contractor shall not undertake any mining operations in the area granted on mining contract without obtaining requisite permission from the competent authority as required for undertaking mining operations under relevant laws.

ix) A barrier of 7.5 m width will be left from the mining area boundary, .

Basis of Mineral Reserves Calculation – outside River channel Area

- Mineral Reserves falling iout side the river bed area has been calculated taking the maximum permissible depth of 3 m from the river bed surface RL.
- The bulk density of Sand is considered 2.0
- Volumetric method is adopted for calculating reserves of Sand.

- The mineable reserves are calculated by deducting "Blocked Geological Reserves on account of river banks, lease boundary, railway line, highways, bridges, anicuts (where ever applicable) from total proved Geological Reserves".

- It is considered that river bed Sand shall be replenished every year as evident from preceding paragraph (3.2.6) on " Annual Replenishment of Mineral in River Bed Area vis-à-vis Sedimentation"

UNFC classification – Codes of UNFC are followed for reserve calculation

UNFC is a three digit code based system, the economic viability axis representing the first digit, the feasibility axis the second digit and the geological axis the third digit. Each digit provided.

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

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

- Code (121): This code is provided for the economically mineable part of the indicated mineral resources (probable category reserves).

- Code (211): The part of the measured mineral resources (proved category), which as per feasibility study has not found economically mineable. The reserves blocked in 7.5 meters buffer zone and 50 meters from permanent structure.

- Code (222): The part of the indicated mineral resources (probable category), which as per feasibility study has not found economically mineable. The reserves blocked in 7.5 meters buffer zone and 50 meters from permanent structure.

- Code (480): Tonnage, Grade and mineral contents can be estimated with low level of confidence and resources are also inferred from geological

- The reserves of Sand calculated by volumetric method and are summarized here below:

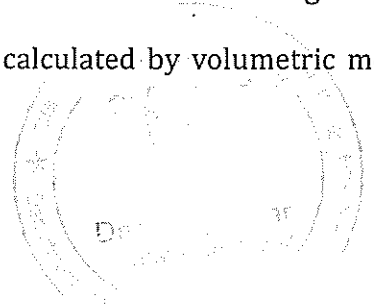


Table: Geological Reserves

S. No.	Nature of Land	Lease area in Hectares	Total Proved Geological Reserves MT) For 9 years (A)	Block area due to safety barrier and bench slopes	Blocked Geological reserves (B)	Total Mineable Reserves (C)	Planned Production
1	River Bed	34.40 ha	2064000x9 =1,85,76,000	7.87	472200x9=42,49,800	1591800 =1,43,26,200	15,91,800
2	Outside reiverbed	10.00	16,00,000	1.0	160000	1440000	1,60,000
	Total	44.40	2,01,76,000	8.87	4409800	15766200	17,51,800

Replenishment Study for the year 2020-21 reveals that there is replenishment (Natural Reclamation Rainfed Water Containing Sand) of approximately 14,58,143.64 MT of mineral Sand in river bed block . **Annexure -**

k.) Furnish detailed calculation of reserves /resource section wise of reserves

Details of Reserves calculation and blocked reserves under pit slopes and benches and safety barrier are calculated and Reserves as on March .2021.

Resources and reserves within the lease have been arrived after applying results /Feasibility /prefeasibility study and economic valuation of deposit based on various factors such as :

a) Mining method, recovery factor, mining losses, processing factor

Open cast mechanized using heavy machineries mining method is proposed and recovery factor for saleable sand is considered s 100% , only no waste is likely to be generated .All sand fractions are saleable

b) Cut off grade, ultimate pit depth proposed

No cut off grade is there as all mineral is saleable

c) Mineral /ore blocked due to benches , barriers, pillars, road, railways, river ,nala, reservoir, Electric line and other statuary barriers, under forest, sanctuaries ,etc. where necessary permissions are not available

Mineral shall be blocked only in safety barrier of 7.5 meter wide green belt and under benche slopes as a part of statutory provisions .Other features like road, nala, reservoir and HT lines are not found in the area. Depletion of Mineral in last five years period from 01.04.2016 to March 2021 are as under -

Year	Past Proposal of ROM	Achieved ROM in T. *(*Up to March..2021)*
2016-2017	1600000	138028
2017-2018	1600000	160000
2018-2019	1600000	0
2019-2020	1600000	4924
2020-2021	1600000	236155.02*Continue
Total		**539107.02**

**Work suspended due to litigation of lease*

Anticipated life of mine

It is estimated that the entire mineral mined every year will be replenished. Therefore at the proposed rate of production the life of the mine is more than 4 years

	1)	Estimated mineable ROM being replenished	=	14,58,143.64 Tons
	2)	Proposed Production every year	=	14,40000Tons
	3)	Depleted reserves in past plan period	=	539107.02Tons
	4)	Balance Reserves after replenishment	=	14,58,143.64 MT per year
	5)	Anticipated life	=	>5.0 years approx. and more

PART –B MINING

OPEN CAST MINING:

a.) Briefly describe existing and proposed method of excavation with all design parameters indicating plans and sections

As per previous mining plan some area was broken due to mining activities but the same area is back filled by fresh sand .During the past plan period 539107.02Tons production was done and the working was suspended due to Hon'ble NGT order and DMG for some time , which was resumed after rectification by PP . The year wise excavation was replenished in every monsoon season. In view of the same mining activities was continued to next block as per past proposal. On account of regular replenishment the no excavation left open for measurement. Fully mechanized opencast mining method was adopted in this mine to ensure the continuous supply of desired quantity and quality of sand to the nearby consumers in two shift working

Fresh area doesn't have top soil and overburden so directly sand in loose form loaded to tippers by loaders or by combination of dozer, excavator and dumpers without use of drilling and blasting .

The sand is excavated in bench of 3.0 meters or less .The working bench width is kept more than 10 m having pit slope 30°.The sand is loaded by excavator into dumpers.

Proposed method of Mining

Mining activity will be carried out by open cast semi-mechanized method. Mining Contract has been allotted for a period of 09 years only. Mining area consist of 44.40 ha area in Jainpur-2 out of which about 34.40 hectares area is under river bed mining zone. And 10.0 hectares area is out side the river bed . Currently mining is proposed in the river bed area as of having no restriction except statuary barrier there are sufficient reserves after replenishment in the in area for proposed mining.

- No overburden/ waste material will be produced in river bed. No drilling/ blasting are required as the material is loose in nature.
- Light weight excavators will be used for loading of mineral in tippers.

- Proper benching of 1.5- 3.0 m height will be maintained and width of the bench will be around 20 m. The benches shall be maintained in the form of slices/strips parallel to the banks of river.
- Mining activities will be carried out in a manner so that there is no obstruction to the movement of water flow, if any, during rainy season.
- Roads will be properly made and sprayed by water for suppression of dust.
- Roads in the mining area for the movement of loaded trippers/ trucks will not have slopes more than 1 in 20.
- Extraction activities will start in the blocks from the upstream side to downstream side. This will not obstruct the movement of water, if any, during monsoon period in the river course.
- In case during any period, the replenishment was found less than 1.5-3.0 m or depth of exaction, the mining during said period would restrict to depth which would not be more than 3 m of the original level of the river bed.

Total production envisaged is 3033 MT per day i.e. 121 trips@25Mt/trip. Activities will be carried out as per the production schedule given earlier. The mining quarry will be working as self sustained units with all facilities like site office, rest shelter, first aid and drinking water etc. All these mines will be connected suitably with communication system.

Roads will be properly made and sprayed by water for suppression of dust.

Roads in the mining area for the movement of loaded trippers/ trucks will not have slopes more than 1 in 20.

b.) Indicate year-wise tentative Excavation indicating development, ROM, pit wise as in table below*Bulk Density of mineral is assumed to be = 2.0 T/ m³.*

Annual production proposed = 14,40,000Tons /Annum

Daily production proposed = 4966Tons /day

Production programme is =198 trips/ day @ 25 ton per trip .

Working days have been taken as 290 days per annum.

Projected Production per Year = 290 x 4966=1440000 Tons(1.44 Million MT)

Table: Four Years Proposed Production Details (MT/A)

Year	Production proposed		Area (ha) required per year
	Trips/ day	MTPA	
2021-22	192	14.40	28.0
2022-23	192	14.40	28.0
2023-24	192	14.40	28.0
2024-25	192	14.40	28.0

II) Dump rehandeling (for the purpose of recovery of mineral:

No permanent dump will be rehandled and no dump shall be created during the plan period

c.)Enclose Individual year wise development plans and sections showing pit layouts, dumps, stacks of mineral reject, if any, etc. In case of A category mine .Composite development plan showing pit layout ,dumps stacks , mineral rejects if any and year wise sections in case of B category.

Year wise development plan and section have been prepared as 5A to 5C and sections are also drawn showing all layout, slope ,gradient ,benches and proposed plan

d. Describe briefly the layout of mine workings, pit road layout, the layout of faces and sites for disposal of overburden/waste along with ground preparation prior to disposal of waste, reject etc.

Lay out of mine working is given in year wise development plan and sections **(Plate 5A, 5B, 5C & 5D).**

Details of year wise progression of sand pit , opening RL and closing RL , Haul road from 2021-22 to 2023-25 at the end of each year are as under-

YEAR – 2021-22

During this year, the mining is proposed in same area after replenishment, from top RL 215 mRL , and bottom will reach to 213 mRL . Benches height will be of 1.5meter height and width will be more than 20 meters .Total 1440000 T ROM will be produced. Proposed working will be advanced from north to south side in all directions. During the year 28.0 ha. area will be broken and no top soil , No OB is likely be generated . Plantation will be carried out in green belt area and connecting roads to main road in consultation with state govt. departments.. Similarly no mineral stock will be maintained as all mineral is directly saleable. Approach roads will be extended up to face with proper gradient of 1:20,

Mining will be carried out without disturbing the River Chanel Geometry, Bed Geomertry ,Sub-stratum composition and tubidites . All due care will be undertaken for in-stream biota , loss of riparian in stream biota .No working shall be carried out erosion site of river (Concave Sites) during the plan period . The details of mine layout for the year has been shown on **plate no.5A**

YEAR – 2022-23

During this year, the mining is proposed in same area after replenishment, from top RL 215 mRL , and bottom will reach to 213 mRL . Benches height will be of 1.5meter height and width will be more than 20 meters .Total 1440000 T ROM will be produced. Proposed working will be advanced from north to south side in all directions. During the year 28.0 ha. area will be broken and no top soil , No OB is likely be generated . Plantation will be carried out in green belt area and connecting roads to main road in consultation with state govt. departments.. Similarly no mineral stock will be maintained as all mineral is directly saleable. Approach roads will be extended up to face with proper gradient of 1:20,

Mining will be carried out without disturbing the River Chanel Geometry, Bed Geomertry ,Sub-stratum composition and tubidites . All due care will be undertaken for in-stream biota , loss of riparian in stream biota .No working shall be carried out erosion site of river (Concave Sites) during the plan period . The details of mine layout for the year has been shown on **Plate No.5B)**

YEAR – 2023-24

During this year, the mining is proposed in same area after replenishment, from top RL 215 mRL , and bottom will reach to 213 mRL . Benches height will be of 1.5meter height and width will be more than 20 meters .Total 1440000 T ROM will be produced. Proposed working will be advanced from north to south side in all directions. During the year 28.0 ha. area will be broken and no top soil , No OB is likely be generated . Plantation will be carried out in green belt area and connecting roads to main road in consultation with state govt. departments.. Similarly no mineral stock will be maintained as all mineral is directly saleable. Approach roads will be extended up to face with proper gradient of 1:20,

Mining will be carried out without disturbing the River Chanel Geometry, Bed Geomertry ,Sub-stratum composition and tubidites . All due care will be undertaken for in-stream biota , loss of riparian in stream biota .No working shall be carried out erosion site of river (Concave Sites) during the plan period . The details of mine layout for the year has been shown on **Plate No.5C)**

YEAR – 2024-25

During this year, the mining is proposed in same area after replenishment, from top RL 215 mRL , and bottom will reach to 213 mRL . Benches height will be of 1.5meter height and width will be more than 20 meters .Total 1440000 T ROM will be produced. Proposed working will be advanced from north to south side in all directions. During the year 28.0 ha. area will be broken and no top soil , No OB is likely be generated . Plantation will be carried out in green belt area and connecting roads to main road in consultation with state govt. departments.. Similarly no mineral stock will be maintained as all mineral is directly saleable. Approach roads will be extended up to face with proper gradient of 1:20,

Mining will be carried out without disturbing the River Chanel Geometry, Bed Geomertry ,Sub-stratum composition and tubidites . All due care will be undertaken for in-stream biota , loss of riparian in stream biota .No working shall be carried out

erosion site of river (Concave Sites) during the plan period . The details of mine layout for the year has been shown on

Plate No.5D)

f) CONCEPTUAL MINE PLANNING

Exploration proposed.

Mineral is being replenished by river Yamuna sediments and lying adjacent to river bed in post monsoon period , so exploration is not required as low cost commodity minor mineral. Exploration will not be required up to the conceptual period of mining scheme.

(i) Mine area will be worked in blocks for ease of operation. However, as the digging depth will be restricted to 1.5-3.0 m only in river bed and material will still be available below. This will be further replenished during rainy season. Blocks will be worked systematically as the width is limited while length is much more.

(ii) Sequence of working has been shown on Plate no –4. As the mining contract period is only 09 years, some of the area will be left un-worked at the end of contract period.

(iii) Final Slope Angle To Be Adopted

Height of the bench is limited to 1.5-3.0 m only and width will be more than the height of the bench. Bank side natural slope will not be disturbed. This will prevent collapse of bank and erosion. During plan period workings will be carried out in the designated khasras only & workings will ensure safety, remove congestion of vehicles and will have better control and management. The final slope angle of the benches at conceptual stage will be 30 ^{0} and haul road gradient will be maintained to 1:20. At plan and section at 283.5 mRL is shown on the **Plate no.6**

(iv) Ultimate Capacity Of Dumps

There will be no burden removal / generation during the plan period. Therefore no site is designated for dumps.

a) Land use Pattern of Mining Area at Various Stages

Land use pattern will be as follows:

Sr.No.	Particulars	Present Land Use (ha)
1	Restricted Safety Zone/7.5m mining area boundry,	28.0
2	Infrastructure (Office,temp. Shelters etc.	0.0
3	Area available for mining	28.0
4	Un worked	16.44
	Total	44.14

LAND USE PLANING AT THE END OF LEASE PERIOD

Sr.No.	Particulars	At the end of 5th year (ha)
1	Safety Zone 7.5m mining area boundary, /restricted area	28.0
2	Infrastructure (Office,temp. Shelters etc.	0.0
3	Reclaimed area	0.0
4	Unworked	16.44
5	Plantation*(Out side)	00
	Total	44.14

*Plantation in 3.0 ha land will be done under social forestry on restricted area/ lease boundary and land available from Panchayat by the end of mine life

* Plantation & infrastructure In restricted area only

Generation of Top soil & its preservation

No top Soil will be available up to the conceptual period , if any negligible quantity will be used as and when required for plantation .

Post mining land use & reclamation:-

The reject and waste generation from year 2021-25 will be almost Nil/ negligible thus back filling will not be possible. However the plantation at green belt will be done at village area / roads and govt. premises .This will be undertaken under specific permission from the Govt. Department. About 4.0 hect. area will be covered under green belt plantation by local species.

Year wise plantation proposals for next three years.

Year	No of plants	Area	Survival rate	Species of plants
2021-22	500	1.0	About 90%	Arjun,Karanj,Mango,Jamun, Imli, Peltafar, Acacia ,Kathal, Cenmia, Neem, Gulmohar, and other local species
2022-23	500	1.0	About 90%	--Do--
2022-23	500	1.0	About 90%	--Do--
2024-25	500	1.0		
Total	2000	4.0		

PROTECTIVE WORK FOR ENVIRONMENT:-

1. Mining will be carried out without disturbing the River Chanel Geometry, Bed Geomertry , Sub-stratum composition and tubidites .
2. All due care will be undertaken for in-stream biota, loss of riparian in stream biota .
3. No working shall be carried out along erosion site of river (Concave Sites) during the plan period
4. Water will be sprayed on haul road to arrest the dust particles.
5. Regular Air, water and noise monitoring will be done.
6. Plantation will be done to dampen the dust and noise.
7. Proper maintenance of all machinery will be carried to minimize the noise levels ,
8. Only trained operators will be allowed to operate,
9. All machines will be used at optimum capacity,
10. Loading and use of HEMM will be under the strict supervision of certified personals
11. Workers and operators working near machine sites will be provided with PPE's.
12. Mining will be restricted to 3 meter above the water in river channel
13. No aquatic floura and fauna will be disturbed

14. Pit slope will be maintained to 30^0 in view of loose mineral, it will be strictly ensured to maintain slope low for better safety to avoid failure of slope by mining.

15. Garland drain around the sand pit will be made and fencing will be carried out to prevent ingress of any unauthorized person etc.

16. Ear muff fitted Helmets & safety shoes will be provided to workers.

iii.) EXTENT OF MECHANIZATION

In view to produce 16.0 million ton from the mining area the project proponent has already obtained the permission from DGMS to use heavy machineries .Following assumptions are considered for computation of mechanization:

S.no.	Assumptions	Unit
1	No. of shift per day	2
2	No. of working day	290
3	Bulk density of sand/boulder/gravel	2.0
4	Availability of equipments	75%
5	Fill factor of excavator bucket	0.80
6	Hours of working per shift	6.00

Loading /excavating equipments

The number of loading/excavating equipment as envisaged to be provided is given below in view of enhanced rock volume , the calculation in terms of adequacy of equipments are given below-

Requirement of Excavators:

Annual proposed Sand production = 1440000 Tons

S.No.	Particular	Capacity	No.
1	Total no of working days	290	
2	Excavators	2.0 M^3	7

3	Hydraulic excavator capacity	2.0 M^3	
4	Dumper Capacity 25.0Tons	25.0Tons	193
5	Water Tanker	4000 liters	2
6	Light vehicles	1	1
7	Maintenance van	1	1

Thus 5shovels +1 standby will be required to meet the current production

Requirement of Dumpers

The produced ROM shall be sold from the ex pit thus the trucks will be deployed as per the demand. As per targeted quantity 193 nos. of trucks of 25 Ton capacity per day will be required to transport the production

C. List of Machineries owned by company

The Project proponent has deployed a fleet of heavy machineries, its capacity, make and no. are tabulated as under :

Sr. No	Make	Description	Units
1	Local	Water tankers	1
2	Ashok Leyland	Dumpers	193
3	local	Compressor	1
4	Kirloskar	Pumps	1
5	Maruti	Service van	1

The company has sufficient fleet of machineries to meet the production and development requirements. Additional machinery and trucks will be on hired basis as and when required.

DRILLING & BLASTING

Not applicable

A. UNDER GROUND MINING

Not applicable, it is an open cast mine

3.0 MINE DRAINAGE

The River Yamuna flows from N to S which originates from the Himalayas provides the major drainage in the mining area. The general slope of the land surface is From E-W and elevation of the mining area varies from 220.0 mRL in the north end side of the mining area to 209.0 mRL in south end side of the mining area. There is flow of water in the river bed in a narrow area in post monsoon period. Area is having 1067 mm rainfall in a year. During rainy season, catchment water flows in the river. During dry period the Sand is excavated which gets replenished during rainy period. No mining activities will be carried out during rainy season when there is water flowing in the working area. There will be no intersection of water table as working will be carried out upto 3.0 m depth only from surface of river bed while the water level is 5 -10 m below the surface of river bed.

3.1 Drainage around and within mine:

The mining area will become a depression, which warrants accumulation of water during rainy season. The pit will become a depression and will help in faster recharge of water in the aquifer

3.2 DEWATERING:

Since the depth of mining proposed is only 1.5-3.0 meters near the river bed, the same being above the water table of the area, there will be no chance of encountering the ground water table during the mining operations. No dewatering of the ground water is proposed.

3.3 Water Requirement

The requirement of water for the project will be as under and it will be sourced through hired tankers and locally tube wells

Sr.no	Activity	Requirement in KLD	Source
1	Dust suppression	10	Hired Tankers

2	Drinking	4	Hired Tankers
3	Green belt	5	Hired Tankers
	Total	**19**	

a) Minimum and maximum depth of water table based on observations from nearby wells and water bodies

The River Yamuna flows from N to S which originates from the Himalayas provides the major drainage in the mining area. The general slope of the land surface is From E-W and elevation of the mining area varies from 220 mRL in the north end side of the mining area to 209 mRL in south end side of the mining area.The proposed production for the five years is @ 14,40000 TPA. The ultimate pit limit is 3 m bgl or 2 meter above water table whichever comes first

There is flow of water in the river channel in a narrow area in post monsoon period. Area is having 1067 mm rainfall in a year. During rainy season, catchment water flows in the river. During dry period the Sand is excavated which gets replenished during rainy period. No mining activities will be carried out during rainy season when there is water flowing in the working area. There will be no intersection of water table as working will be carried out upto 1.5-3.0 m depth only from surface of river bed while the water level is 5 -10 m below the surface of river bed.

b) Indicate maximum and minimum depth of Workings.

During the plan period the depth of mining at the end of year 2021-25 working will be up to 213 mRL, i.e 3 mtr above from ground water level So water level will not be intersected

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

The quality of water analyzed is observed with in permissible limit. No toxic elements have been observed in the water. The water is drinkable and potable. Water quality report is enclosed herewith as **Annexure -9.**

d) Describe regional and local drainage pattern. Also indicate annual rain fall, catchments area, and likely quantity of rain water to flow through the lease area, arrangement for arresting solid wash off etc.

The area does not have any other source of water except river or manmade (Public water supply system), so the Rain water is the only source of water to meet the domestic and industrial need of company establishments.

4.0 STACKING OF MINERAL REJECT /SUB GRADE MATERIAL AND DISPOSAL OF WASTE

a) Indicate briefly the nature and quantity of top soil, overburden / waste and Mineral Reject to be disposed off.

Type of waste generated during the year.

1. No top Soil found in area.
2. Mineral sand consisting of rounded to sub subrounded fine rock of sub Himalayan region .
3. No mineral subgrade / Reject found in the river bed

b) The proposed dumping ground within the lease area be proved for presence or absence of mineral and be outside the UPL unless simultaneous backfilling is proposed or purely temporary dumping for a short period is proposed in mineralized area with technical constraints & justification.

No external sand/gravel is dump is proposed. All the waste & OB will be dumped at periphery for temporary period in the lease area. After complete exhaustion of mineral in the area backfilling will be done with the available waste and plantation will done by spreading top soil over it.

Maximum Height & Spread of the Dump :

During plan period no waste dump shall be made, the waste generated during period of mining scheme shall be used in selling as associated mineral as per permission granted by Mines department .

c) Attach a note indicating the manner of disposal of waste, configuration and sequence of year wise build up of dumps along with the proposals for Protective measures.

It will not be required no OB /waste will be generated . all mineral is saleable .

5.0 USE OF MINERAL AND MINERAL REJECT

a) Describe briefly the requirement of Mineral :

The main mineral is sand , Boulde and Gravel hence the entire mineral sand of this mine is used for construction purpose only and source material for production of sand aggregates of different sizes .

b) Give brief requirement of intermediate industries involved in upgradation of mineral before its end-use.

Not applicable

c) Give detail requirements for other industries, captive consumption, export, associated industrial use etc.

The sand produced from the mine is being used in the manufacturing of aggregates by crushers , which are located near by the lease area.

e) Give details of processes adopted to upgrade the ROM to suit the user requirements.

Not applicable

6.0 PROCESSING OF ROM AND MINERAL REJECT

a) If processing / beneficiation of the ROM or Mineral Reject is planned to be conducted, briefly describe nature of processing / beneficiation. This may indicate size and grade of feed material and concentrate (finished marketable product), recovery etc.

The overall quality of ROM sand is suitable for manufacturing of sand aggregate purpose and filler purpose. no sand will be sub grade , The sand will be crushed to supply for a specific size to the customers ,hence beneficiation / processing will be required .As masonry sand is low cost mineral Thus no beneficiation investigation has been proposed.

6.10 EXISTING METHOD OF BENEFICIATION:

Crushing: There is no mineral crushing , screening and beneficiation facility set up with the mine lease area M/S Yodha Mines and Minerals has planned sell ROM to nearby construction sites .

b) Give a material balance chart with a flow sheet or schematic diagram of the processing procedure indicating feed, product, recovery, and its grade at each stage of processing.

All sizes of crushing will be saleable including fine dust .thus 100 % ROM and processed material will be balanced, no loss is anticipated .

c) Explain the disposal method for tailings or reject from the processing plant.

Not anticipated tailing or rejects

d) Quantity and quality of tailings /reject proposed to be disposed, size and capacity of tailing pond, toxic effect of such tailings, if any, with process adopted to neutralize any such effect before their disposal and dealing of excess water from the tailings dam.

Not applicable

e) Specify quantity and type of chemicals if any to be used in the processing plant.

Not applicable

f) Specify quantity and type of chemicals to be stored on site / plant.

Not applicable

g) Indicate quantity (cum per day) of water required for mining and processing and sources of supply of water, disposal of water and extent of recycling. Water balance chart may be given.

Total water requirement for the proposed working will be 40KLD per day for dust suppression and drinking purpose , as such there is no tailing /waste water discharge . Water balance chart is attached as **Annexure- 12.** The Permission Consent to establish and consent to operate have been obtained from HSPCB .Govt. of Haryana.

7.0 OTHER

a) SITE SERVICES

(A) A well constructed mine manager office, stores, First aid center, rest shelters, toilets, drinkable water facilities, canteen facilities and workshop have already been provided for this lease area and within the adjoining lease area of 300 meters . Proper space is available to keep the registers and records during working hours.

(B) visiting doctor facility is provide located in the plant area, So only first aid kits & first aid box are proposed at mine site for giving first aid to the injured persons if, any. Record of pre and during medical examination is kept, and no health hazard is found during the mining working

(C) A well equipped workshop and repair facilities are available for carrying out preventive maintenance, minor and major repairs, rebuilding and complete overhauling of mining equipment.

(D) Permanent facility for workmen, guest houses are within 5 km from Pichopa mine site .Further additional all facilities, Gramin bank, post office, hospitals etc are available at Jainpur and Yamunnagar .

b) EMPLOYMENT POTENTIAL

Following statutory and workmen employed are employed at the mine in site two shift working

S. No.	Category	Numbers
1	Mines Manger	1
2	Foreman/mates	4
3	Skilled personnel	20
4	Semi-skilled personnel	20
5	Unskilled	8
Total		**53**

The excising man power will remain continue and additional man power will be deployed as per requirement.

8.0 PROGRESSIVE MINE CLOSURE PLAN UNDER RULE 27 OF MCDR' 2017

This is an existing area being worked by mechanized way, in lease area of 48.60 hect. falls in Topographic sheet no. H43W2 falling near village Kanalsi, District Yamunanagar .A key plan of lease area and surrounding area with 5.0 kms radius is marked .The total lesase area is barren land as per revenue records of the mine. There is no protected forest, reserve forest and archeological monument in the granted area..The same has been recovered and being used under due permission from the state govt.

REVIEW OF IMPLEMENTATION OF MINING PLAN INCLUDING FIVE YEAR PROGRESSIVE CLOSURE PLAN UP TO FINAL CLOSURE OF MINE

8.1 Reason of closure: It is a granted area and minerisation is replenished every year so during plan period closure action is not proposed. Unrestricted area is back filled with minerals and closure is not proposed considering mineral conservation and extraction.

8.1.1 Statuary obligation:

1. The project proponent is working while taking all safety measures and compiling all statuary obligations of MMR 1961, MMDR ACT.1957,IE Act. 1884 and Air(prevention and control of pollution) Act.1981 and water (prevention and control of pollution) Act.1981 etc.
2. The mining contractor is bound to submit the Progressive mine closure plan either with Mining plan or Scheme of Mining.
3. Mining contractor is bound to follow the terms and conditions as will be stipulated in the mining contract.
4. In addition to it the rules pertaining to the Protection of Environment i.e Environment Act. Environment Rules and other associated rules for the protection of environment will have to be followed.

5. During the course of mining the rules stipulated in Mines Act, Mines rules Metalliferous Mines Regulation 1961 and HMMCR.2012 will be followed.

6. All other rules pertaining to the mining existing at that time will be followed during the course of mining activities.

8.1.2 Closure plan preparations

Name, address and registration number of the recognized persons who prepared the progressive closure plan and name and address of the executing agency who is involved in the preparation of progressive mine closure plan.

Kireet Acharya

Regd. No RQP/AJM/230/2003/A (Annexure-13)

8.1.3 Regional Geology local geology Reserves and Method of mining already described

8.1.3 Environment Base line information: Details of status of baseline Information with regard to Existing land use pattern indicating the area degraded due to mining, roads, processing plant, workshop, township etc are shown in tabular form.

8.1.4 EXISTING LAND USE PATTERN

The lease area is falling in govt. land (44.14 hect.), others type of land is not found in the area . total lease area the mineralized area and part of area is broken for mining purpose .The present land use pattern of the lease area is tabulated as follows: -

Sr.No.	Particulars	Present Land Use (ha)
1	Restricted Safety Zone/7.5m mining area boundry,	4.0
2	Infrastructure (Office,temp. Shelters etc.	0.00
3	Area available for mining	28.0
4	Unworked	16.4
	Total	44.40

LAND USE PLANING AT THE END OF LEASE PERIOD

Sr.No.	Particulars	At the end of 5th year (ha)
1	Safety Zone/7.5m mining area boundry,	4.0
2	Infrastructure (Office,temp. Shelters etc.	0.00
3	Reclaimed area	28.0
4	Unworked	16.40
5	Plantation*	0.0
	Total	44.40

Plantation 4.0 Ha. out side along road, village*

*Plantation in 4.0 ha land will be done under social forestry on land available from Panchayat by the end of mine life

* Plantation & infrastructure In restricted area only

8.1.2 Water regime

The area constitutes almost alluvial plain without any conspicuous topographical features and forms a part of the vast Indo-Gangetic plain. The elevation of the area above mean sea level is about 215 MSL. The general slope of the area is southwards. Area is having 1076 mm rainfall in a year. During rainy season, catchment water flows in the river.

There will be no intersection of water table as working will be carried out upto 3.0 m depth only from surface.

8.1.3 Water.Quality

The area constitutes almost alluvial plain without any conspicuous topographical features and forms a part of the vast Indo-Gangetic plain. The elevation of the area above mean sea level is about 2156 m aMSL. The general slope of the area is southwards. Area is having 1076 mm rainfall in a year. During rainy season,

catchment water flows in the river. There will be no intersection of water table as working will be carried out upto 1.5- 3.0 m depth only from surface.

8.1.4 Quality of air, ambient noise level.

The air noise level is much below the permissible level. Quality of air, water & Noise is monitored regularly at defined stations. The results of the study show that the observed values of base line information are within limits with reference to standard parameters. Air, water & Noise monitoring reports are enclosed as **Annexure-8-11.**

8.1.5 Air Quality Management:

The proposed mining method is not likely to produce much of dust and fugitive emissions to cause damage to ambient air quality of the area. Workers will be provided with personnel protective equipment like face mask, ear plug/ muffs.

For air pollution management at the progressive mine closure of mine, green belt will be developed to prevent and control air pollution.

8.1.5. Waste Management:

As stated in mining method, there will be no waste of any kind. Therefore no waste management s required.

8.1.6 Top Soil Management

There will be no top soil in the river bed. Therefore no top soil handling is needed.

8.1.7 Tailing dam management

There is no proposal of beneficiation of mineral. No tailing dam is envisaged.

8.1.8 Infrastructure:

The infrastructure facilities like site office, first –aid station, rest shelter/ store, drinking water etc. will be established temporarily. At the time of closure there will be no problem to remove the same from the lease area.

8.1.9 Disposal of mining machinery:

Machinery is proposed on hire basis. Hence no decommissioning of mining machinery is proposed.

8.1.10 Safety & Security:

1. Safety measures will be implemented to prevent access to excavation area by un-authorized persons as per Mine Act 1952, MMR 1961.

2. Safety measures will be implemented as per Mine Act 1952, MMR 1961, Mines Rules 1955.

3. Provisions of MMR1961 shall be followed strictly and all roads shall be 10 m wide and have a gradient of not more than 1 in 20.

4. Excavation will be not more than 3 m in river bed ..

5. Width of bench will be kept around 20.0 m for ease of operations and provide sufficient room for the movement of equipments.

6. Protective equipment like dust masks, ear plugs/ muffs and other equipments shall be provided for use by the work persons.

7. Notices giving warning to prevent inadvertent entry of persons shall be displayed at all conspicuous places and in particular near mine entries.

8. Danger signs shall be displayed near the excavations.

9. Security guards will be posted.

10. In the event of temporary closer, approaches will be fenced off and notice displayed.

4.10 Disaster Management and Risk Assessment:

This should deal with action plan for high risk accidents like landslides, subsidence, flood, inundation in underground mines, fire, seismic activities, tailing dam failures etc. and emergency plan proposed for quick evacuation, ameliorative measures to be taken etc. The capability of lessee to meet such eventualities and the assistance to be required from the local authorities should be described.

- The shallow depth of activities outside the river bed mining will not involve any high risk accident due to side falls/collapse.
- There will be no mining whenever there is flow of water.
- The complete mining operation will be carried out under the Management and control of experienced and qualified Mines Manager having Certificate of Competency to manage the mines granted by DGMS.
- All the provisions of Haryana Minor Mineral Concession rules , Mines Act 1952, MMR 1961 and Mines Rules 1955, and other laws applicable to mine will strictly be complied with.
- During heavy rainfall the mining activities will be closed.

- All persons in supervisory capacity will be provided with proper communication facilities.

Competent persons will be provided First Aid Kits which they will always carry.

8.11 Care and Maintenance during Temporary Discontinuance:

In case of any temporary discontinuance due to court order or due to statutory requirement or any other unforeseen circumstance following measures shall be taken for care, maintenance and monitoring of conditions.

- Notice of temporary discontinuance of work in mine shall be given to the DGMS as per the MMR 1961.
- All the mining machinery shall be shifted to a safe place.
- Entrance to the mine or part of the mine, to be discontinued shall be fenced off. Fencing shall be as per the circular 11/1959 from DGMS.
- Security Guards shall be posted for the safety and to prevent any unauthorized entry to the area.
- Carry out regular maintenance of the facilities/area detailed below in such a way as would have been done as if the mines were operation:

Mine roads and approach roads,

Fencing on approach roads,

Checking and maintenance of machines and equipment,

Drinking water arrangements,

Mine office, first aid stations etc.

- Competent persons shall inspect the area regularly.
- Air, water and other environmental monitoring shall be carried out as per CPCB and IBM Guideline.
- Care and upkeep of plantation shall be carried out on regular basis.
- Status of the working and status monitoring for re-opening of the mines shall be discussed daily.

In case of discontinuance due to any natural calamities/abnormal conditions, mining operation will be restarted as early as possible after completing rescue work, restoring safety and security, repairs of roads etc.

8.2 IMPACT ASSESSMENT:

8.2.1 Land area indicating the area likely to be degraded due to quarrying, dumping, roads, workshop, processing plant, tailing pond/dam, township etc.

Due to mining activities, the present land use pattern will be definitely change, the land will be degraded as pit size will increased & waste removed during mining operation will be systematically backfilled with the balance waste .The disturbed area due to mining , transportation , and temporary infrastructure will be levelled and put use for regressing as per MoEFCC notification 2020

Land use pattern after end of the four year scheme period will be as follows.

S no.	Particulars	Area put on use at end of mining scheme
1	Area under reclamation	28.0
2	Storage for top soil	0.00
3	Waste dump	0.00
4	Mineral storage	0.00
5	Infrastructure -workshop, Administrative, building etc.	0.00
6	Roads	0.00
7	Railways	0.00
8	Tailing pond	0.00
9	Mineral Separation Plant	0.00
10	Afforestation	0.00
11	Restricted area	0.0
12	Others (Green belt)	0.0
13	Undisturbed area	16.4
	Grand Total	**44.40 hect.**

The likely depth of the pit at the end of mining scheme period will be up to 213 mRL.

8.2.2 Impact on Air Environment

The mining activity does have some impacts on air quality. The major contribution to the air pollution by sand mining is the rise in Suspended Particulate Matter (SPM) due to generation of dust by movement of fleet of dumpers, trucks, jeep etc. Transportation

will also give rise to generation of NO_x and SO_2. Heavy vehicles cause emission of NO_2, SO_2 and CO. To prevent air born particles at the time of loading water spraying over haul road will be done . Within sand mining pit area where water sprinklers are not installed, water spraying by water tankers are done to prevent dust generation. Periodical Air sampling and analysis is done by NABL labs and the results are within the range. **(Annexure-8)**

8.2.3 Impact on Water Environment

The mining operations will not interfere with natural drainage pattern and river channel will not be obstructed in any case .

The water will pass freely during rainy season through broken block area and backfilled by sand and gravel .No waste dumps are there thus the quality of water and mineral will be deteriorated. In absence of toxic minerals, the quality of water will not get any adverse impact.

In order to avoid soil erosion & carry-over of the material with rain water,bank slope is kept to 30^o , which is on quite safer side . Rain water from pits , river channel , pit sumps, shall be not pumped out and no water reservoir shall be made .Water in small quatity shall be brought through the open aqua duct. The water will seep to river channel owing to high porosity and permeability of sand and gravel . Thus there will be no loss of water Periodical water sampling and analysis is done by NABL labs and the results are within the range.**(Annexure -9)**

8.2.4 Impact on Noise levels

In Mine area noise level will be is increased by movement of dumpers , loading of minerals by excavators , and Movement of LMVs etc. The noise level in the working environment are compared with the standards prescribed by Occupational Safety and Health Administration (OSHA-USA) which has been adopted and enforced by the Govt. of India through model rules framed under Factories Act. These standards have been established with emphasis on reducing the hearing loss and consequential effects. The summary of the permissible exposures in cases of continuous noise as per above rules is give below:-

Noise at lower levels (sound pressure) is quite acceptable and does not have any bad effect on human being but when it is abnormally high, it incurs some maleficent effects on human beings. Sufficiently loud noise may cause the following adverse effects:-

(i) Damage hearing and health,

(ii) Interfere with work task,

(iii) Interfere with speech communication,

(iv) Cause irritation,

(v) Affect inter-room privacy,

(vi) Interfere with sleep,

(vii) Cause annoyance,

Noise survey is done regularly. Report of Noise survey is attached All the HEMM operators have been provided with ear muff mounted Helmet, also they have been trained & motivate to use them. Periodical Noise monitoring is being done by NABL labs and the results are within the range **.(Annexure -10)**.

8.2.5 Vibration levels (due to blasting)

No blasting will be there and movement of heavy machinery will cause vibration effect negligible. It is not proposed to periodically measure / monitoring of ground vibrations, ..

8.2.7 Impact on Acid mine drainage

No acid mine drainage is expected.

8.2.8 Impact on Surface subsidence

No surface subsidence is expected.

8.2.9 Impact on Socio-economics

The mining of and sand and Gravel will promote the construction activities in the region and will create direct and indirect employment opportunities to 500 peoples. It has not only helped in improving and developing the infrastructure of the area but also changed the economic pattern of the area. M/S Yodha Mines and Minerals Company

has made provided renal accommodation to employees with all basic amenities. Plantations , light and drinking water and coolers are provided under, Schools, post office, bank, hospitals, shopping center, facilities are available at Nearby village .

Due to mining activities no evacuation of human settlement is involved. The mining operations will not cause any adverse impact on socio economic environment of the area. The Social & Demographic Profile of the area improves by having an economic activity near the villages by direct and in direct jobs.

8.2.10 Historical monuments etc.

There is no historical monument, place of worship falls in the buffer and core zone .

ENVIRONMENT MANAGEMENT PLAN

9.0 MEASURES TAKEN AND TO BE TAKEN FOR LAND RESTORATION, RECLAMATION AND PLANTATION IN/ OR NEARBY MINING AREA

- Envisaged mining operation will be carried out in the River bed only. There will be no mining activities when there is flow of water in the working zones. During rainy season, the activities will be stopped, if there is flow in the mine.
- Besides resource extraction, following activities will be kept in view:

a) Protection and restoration of ecological system

b) Prevent damages to the soil erosion in the nearby areas by making soil bund on the lease boundry

c) Protect riverine configuration such as bank erosion, change of water course gradient, flow regime etc.

d) Prevent contamination of ground water

Safeguard Measures

While carrying out mining activity following measures will be taken:

- Mining activities will be carried out only in dry bed. No in stream mining will be practiced.
- Identification of river stretches for mining will be completed.
- There will be no mining near the banks and same would be restricted with central 3/4th of the river bed. This is to protect the bank erosion and river migration.
- Mineral Sand from river will be restricted to a maximum depth of 3.0 m from the

existing bed level. This is for safety and sustainability.

- As the mining area is quite large and long in length, systematic extraction will be carried out to prevent seasonal scouring and enhanced erosion.
- Extraction will be carried out in a manner that there is no obstruction to flow of water, if any, during rainy season.

Mining on the concave side of the river channel would be avoided to prevent bank erosion. Similarly meandering segment of river will be selected to prevent natural eroding banks and to promote mining on natural building (aggrading) meanders component

Reclamation of Mined out Area (plate no.5)

There is no generation of OB/ waste material in case of river bed mining. No backfilling has been proposed in the excavated zone in river bed. River bed will be replenished by sediments during rainy season.

9.1 GREENBELT DEVELOPENT

In order to restore the environment and ecological balance in the area affected by mining, a forestation is considered to be an effective measure. Afforestation is a major thrust area in pollution control of mining. Afforestation is suitable for detecting, recognizing and reducing air pollution effects. Tree functions as sinks of air pollutants, besides their bio-aesthetical values, owing to its large surface area. The green belt supplements Oxygen to the atmosphere and combat air pollution effectively and aesthetic beauty and landscape of the area improves. It also checks soil erosion and make eco-system and climate more conducive.

Following factors will be considered while selecting species for plantation:-

i) Fast growing plant species shall be preferred.
ii) The plant will be of deep rooting system.
iii) The plant will be perennially green to improve aesthetic beauty of the area.
iv) The plant species will be adoptable to the local climatic conditions.
v) Native plant species will be planted.

Forestation programme shall be carried out basically, along the mine boundaries and roads as permitted by land owners. The mining area is devoid of any vegetation, will

not cause any harm to riparian vegetation cover. It is proposed to have plantation on both sides of the roads as greenbelt to provide cover against dust dissemination. Plantation will also be carried out as social forestry programme in villages, school and the areas allocated by the Panchayat/ State authorities.

Native plants like Neem, shisham, , Mango and other local species will be planted. A suitable combination of trees that can grow fast and also have good leaf cover shall be adopted to develop the greenbelt. It is proposed to plant 2000 no's of native species along with some fruit bearing and medicinal trees during the plan period.

YEAR WISE GREENBELT PROGRAMME

Year	Proposed trees nos.	Survival 80 %	Species	Place of Plantation
2021-22	500	400	Neem, , Mango, Shisham, Sirish, Babool, Gulmohar	Along the roads, in schools and public building and other social forestry programme.
2022-23	500	400		
2023-24	500	400		
2024-25	500	400		
Total	2000	1600		

11.0 MEASURES TAKEN AND TO BE TAKEN FOR PROTECTION OF ENVIRONMENT IN AND AROUND MINING AREA

- Mining activities will be confined to 3.0 m depth .
- All link roads from the mining area to the tar road will be properly sprayed with water for dust suppression.
- Greenbelt and plantation on road side will help in dust suppression and will also reduce noise level.
- Plantation will improve ecology and aesthetic beauty of the area
- Measures will be taken to prevent the workings from extending in safety zones, cutting the banks and exceeding 3.0 m depth limit from the river bed surface.

12.0 MEASURES TAKEN AND TO BE TAKEN FOR DUMPING OVERBURDEN, STACKING OF TOP SOIL AND UTILIZATION OF TOP SOIL

There is no top soil in the river bed mining. If any soil is required to be removed the same will be used to strengthen the river banks.

13.0 MEASURES TAKEN AND TO BE TAKEN FOR THE CONTROL OF WATER, NOISE AND AIR POLLUTION

Air Pollution:

Emission of gases and dust takes place due to movement of vehicles. Spraying of water and plantation along the road side prevents the spread of dust. Plantation also acts as barrier for restricting pollution. Impact on air environment has been assessed taking in to consideration the proposed production and increase emissions. The sources of air pollution are given below:

- Operation of mining machinery/ loading operations
- Transportation of mineral
- Wind erosion from barren area and river bed
- Emission of gases and dust due to movement of vehicles

MEASURES FOR DUST SUPPRESSION & CONTROL OF AIR POLLUTION:

Control of Air Pollution Due To Dust, Exhaust Emissions or Fumes During Mining or Processing Operations For Minor Mineral & Related Activities and Containing the Same Within Permissible Limits Specified Under : -

1. Plantation road side as it will prevent the spreading of dust.
2. Water spraying will be done twice in a day over the haul road & roads leading to adjoining state roads.
3. Dust respirators will be provided to the operators of the heavy earth moving machineries.
4. Preventive maintenance shall be carried out of equipment.

5. At every work place where, the air borne dust generated, to be sampled and the concentration of the respirable dust will be determined regularly. If any measurement at any workplace and at source, the concentration in excess of 50% or 75% of the available concentration of permissible limit then measurements shall be carried on, at intervals not exceeding 3 months or 1 month respectively.
6. Silencers will be fitted to the dumpers.

The following table indicates the concentration of Ambient Air as per the CPCB guidelines:

Air pollutants released during production can be checked by:

- Dust suppression system/ water spraying would be adopted at mine working and loading points
- Excavation operations to be suspended during very strong wind conditions
- Afforestation will be carried out for control of dust
- Plantation with wide canopy trees along approach road will help in dust suppression
- Persons to be provided with dust mask and other personal protective equipments, particularly during summer months and dust storm periods

Transportation

- Regular water spraying on haulage roads during mineral transportation by water sprinklers,
- Avoid over loading of tippers & consequent spillage on the roads,
- Mineral carrying trucks will be effectively covered by tarpaulin to avoid escape of fines to atmosphere,
- Air quality shall be regularly monitored both in the core zone and the buffer zone.

Controlling of NOx level

The source of NOx is due to vehicular emission. This can be controlled by proper maintenance and servicing of vehicles. Only Pollution under control certified vehicles will be permitted

Noise Pollution

There is no drilling and blasting for mineral extraction. Noise pollution due to transportation will not cause any problem to the inhabitants of this area because there is no human settlement in close proximity to the link roads in mining area.Effective steps will be taken to keep the noise level well below the DGMS prescribed limit of 85 dBA.

Noise control is achieved by the following:

- Proper care and maintenance of the equipments will be carried out.
- Personal protective equipments will be provided to the workers.

15.0 DETAILS OF HEALTH CHECKUP AND INSURANCE OF ALL THE EMPLOYED PERSONS (FOR EXISTING MINING AREA)

The lease will comply with the recent provisions of medical examination as per Mines Rule 1955 both at times of appointment and at least once in five year. Medical camps will be organized for this activity. Necessary record and return will be sent to respective authorities Insurance of all employees as per the rules will be carried out.

15.1 Corporate Social Responsibility

As a corporate responsibility following measures along with budget provision is proposed for improving the conditions of persons in and around the project area:

The Yamuna nagar district of Haryana State is relatively less developed in respect of employment and facilities. Thus, it can be seen that the proposed project offers good potential for the local people for employment directly and indirectly. The Project Affected Persons, if any, of the lease area will be provided with compensation or job or indirect employment such as business, contract works etc. With the starting of mining operation, employment/business opportunity will increase and welfare amenities such as free medical facilities, conveyance, school, free education, drinking water supply etc will be available for the area.

The details of benefits to the people in the adjoining villages are discussed here under:

a) Employment

From the study of socio economic environment at the study area it is quite evident that the area is not quite developed as far as job opportunities and living standard of the population is concerned. Apart from cultivation, agriculture, etc mining, industries and ancillary activities play an important source of livelihood in this as well as adjoining districts.

With the start of mining operations, various employment opportunities will be generated. Several persons will be benefited with mining works, employment through contractor, running of jeep and buses, canteens, different kind of shops and transport related business avenues.

(b) Educational facilities

Industrial on-job training will be provided to the interested local people and the trained people will be absorbed in jobs as per the requirement of the project. Proponent will also provide full cooperation and monitory assistance for adult education programme. Other activities proposed are :

1. Targeted programmes for primary education for specially girl child
2. Augmentation of infrastructure and equipments, furniture, blackboard, toilets etc in schools
3. Scholarships to meritorious students
4. Adult education & awareness about saving & investment plans.
5. Partnerships in state sponsored education programmes
6. School wall boundary maintenance
7. Existing govt. school strengthening by boundary wall construction, construction of toilets, roof repair, drinking water taps, etc.

Capacity building activities such as following will be undertaken:

1. Scholarship for ITI training outside for 10 persons
2. Sponsorship of land losers / wards for full term courses
3. Short term courses for skill up gradation
4. Vocational training (dairy, poultry, bee keeping, sericulture)
5. Specific Programmes for Ladies (stitching, embroidery, tailoring etc)

(c) Medical facilities

Project shall provide aid to improve the existing medical facilities in the villages and also improve awareness and provide sufficient training in hygiene, sanitation and proper diet. Some of the activities that can be carried out are as follows:

1. Mobile Clinic with testing and diagnostic facilities
2. Health Camps for Family Planning, HIV/AIDS and other communicable diseases.
3. Addressing local health related issues through audio visuals and group meetings
4. Subsidized treatment in hospital with which tie-up will be there
5. Specific Programmes for hygiene and sanitation
6. Helping aids to each category of physically challenged as per requirement
7. Eye camps to address the issue of cataracts specially

(d) Infrastructure facilities

Infrastructure facilities like road, Post & Telegraph, Telephone, Banks etc are basics for each and every area. These facilities are already well developed in the surrounding areas. The lessee will take various steps for upliftment of the basic amenities of the area by providing drinking water, communication facilities, etc. Construction of roads, drainage, community halls, school buildings, health centers, street lighting, equipments to educational institutions, public utilities, sanitation facilities, etc in nearby area will be undertaken.

15.2 Fund Provision for Environmental Management

It is proposed to create an Environment Management Fund. The contractor shall deposit/pay an amount equal to 10% of the due contract money along with installments towards the 'Mines and Minerals Development, Restoration and Rehabilitation fund.

8.3 PROGRESSIVE RECLAMATION PLAN:

As the mineral potential will be a continuous process every year in the area and none of the part is will be left as void/ depression available for reclamation . , under the circumstances the back filling and progressive reclamation plan is not feasible.

8.3.1. Mined-Out Land:

Backfilling by fresh mineral sand will be resume with natural flow of river water during the plan period so manual / mechanized process will not be involved

8.3.2 Topsoil Management:

There is no topsoil available in the area. Hence, no stock will be maintained. if soil observed in any part shall be scrapped and shall be collected and stacked separately to be used in plantation.

8.3.3 Tailings Dam Management:

Tailing dam is not required and not proposed in the mining plan hence this para does not apply.

8.3.4 Acid mine drainage, if any and its mitigative measures.

No acid mine drainage is expected, hence no management required.

8.3.5 Surface subsidence mitigation measures through backfilling of mine voids or by any other means and its monitoring mechanism.

Not Applicable

8.3.6 Information on protective measures for reclamation and Rehabilitations work -

Plantation programme is proposed a long haul road, office, nearby roads and nearby villages outside the lease area for year 2021-2025. Green belt plantation covering an area 4.0 hectares will be carried out on along the 7.5 meter periphery of lease area and afforestation of 4.0 hectares is proposed along the haul road , office ,workshop area

Year	No of plants	Area	Survival rate	Local Species of plants
2021-22	500	1.0	80%	Neem, kikar ,Kikar kabli ,siras, pipal ficus , cicus, hareda, badberi , Sisam, or any other local species in consultation of forest office
2022-23	500	1.0	80%	
2023-24	500	1.0	80%	
2024-25	500	1.0	80%	
Total	**1500**	**3.0**		

9.3.7 Regrassing proposal

The area after mining activity will again be backfilled by fresh sand and gravel every year , thus the regressing will be done over it . The back filled area and undisturbed area will be taken up for plantation and regressing as MoEFCC notification dated 16.1.2020 for the growth of grass ,fodder in the mining area

The project proponent shall after ceasing the mining operations undertake regressing in the mining area and any other area which may have been disturbed due to their mining activities and restore the land to the condition which is fit for the growth of regrassing, fodder for flora and fauna etc .Necessary undertaking shall be given by project proponent to Mines and Geology Department ,Haryana .

8.4 Disaster Management and Risk Assessment:

The topography of the area is such that, there are no chances of landslide, subsidence, inundation, fire, and seismic activities. No tailing dam exists in the area, so there is no chance of failure of this. The management of M/S Yodha Mines and Minerals is fully capable to handle risk assessment and disaster management. The mining activities in the lease area are proposed as per regulations of the MMR-1961. First aid facilities are available at the mines site office. Competent persons (first aid trained) appointed as mining mate, Manager will provide first aid to injured person, if any. Trained persons kept first-aid kits with them. Transportation facilities for the injured persons are available at site for this purpose. Hospital facility is located in the colony at about 5.0 from lease area, Communication facility is available at mine.

In an emergency following person may contact.

1. Shri Pradeep Ahlawat (Authorized person)

M/S M/S Yodha Minea and

minerals
Sonipat

Mobile no. 8397800000

2. Mines Manager
M/S Yodha Minea and minerals

Village –Jainpur ,unit-2

Distt. Sonipat , State -Haryana

8.5 CARE AND MAINTENANCE DURING TEMPORARY DISCONTINUANCE:

In case of any temporary discontinuance of the mining activities, the guards will watch & ward to prevent any in advert entry of the unauthorized person also All entries to the mine shall be properly closed. The duty & responsibility of mines manager is to visit all sites & to check, the fencing, waste dump etc. during the working & in the period of the temporary discontinuance of the mining activities. the infrastructure facilities will continue to be used to maintain in safe working.

8.6 OCCUPATIONAL HEALTH AND SAFETY

The lease will comply with the recent provisions of **OSHW code- 2020** for contract workers also to medical examination in addition to as per Mines Rule 1955 both at times of appointment and at least once in year. Medical camps will be organized for this activity. Necessary record and return will be sent to respective authorities Insurance of all employees as per the rules will be carried out.

To prevent the occupational disease / health hazards, suitable measures are proposed in drilling & excavation operations. This will prevent the inhalation of the dust by the workers. The workers will be periodically medically examined under Rule 29(b) of Mines Rule. If any worker found to have contracted with any occupational disease, he will be immediately removed from the affected area and will be provided with proper medical care as per provision of Mines Rule.

In case of any injury to the worker during work, the following measures will be taken:

(i) The workers will be immediately provided the first aid by a trained worker.

(ii) For safety practices during mining, the workers will be provided proper safety wearing and equipments such as hand gloves, safety boots, helmets, earplugs and life jackets etc.

(iii) A First Aid Box will always be provided to the mining mate/ mines foreman, to attend minor injuries.

All the workers will be given vocational training every year on safety aspects in mining by the trained Vocational Training Officers. Apart from this all safety precaution will be taken as per Act, Rules, Regulation and Byelaws made there under.

8.7 ECONOMIC REPERCUSSION OF CLOSURE OF MINE AND MANPOWER RETRENCHMENTS

Mining contract area is granted for a period of 09 years only. As per the production programme envisaged, at the end of contract period, still sufficient Replenished un-worked area would be left available for continuing production activities , Hence, closure is not planned. There will be no affect on the man power as the persons belong to nearby villages and will have an option either to be available for employment for the next contract or do the agriculture in their fields.

8.8 TIME SCHEDULING FOR ABANDONMENT

The mining area has enormous potential for continuance of operations even after the expiry of the awarded period. The details of time schedule of all abandonment will be given at the time of final closer plan. Mining activities are confined 3.0m. depth, relatively shallow depth of workings which will be reclaimed every year during rainy season.

8.9 ANDONMENT COST

As at present mining is not going to be closed so abandonment cost could not be assessed. However based on the progressive mine closure activities during the plan period, cost is assessed as given below:

ACTIVITY	YEAR				Rate	Amount (in Lakhs)
	2021-22	2022-23	2023-24	2024-25		
Plantation (in no.)	500	500	500	500	@ 30 Rs per sapling+70 Rs maintenance cost	2.20
Plantation cost in Rs	50000	50000	50000	50000		
Wire fencing (meter)	500	500	500	500	@ of 125 Rs per meter	2.50
Wire fencing cost	62500	62500	62500	62500		
					Total	4.70

8.10 FINANCIAL ASSURANCE:

The Indian Bureau of mines has given guidelines for calculation of FA, The amount calculated for the purpose of Financial Assurance is based on the CCOM's Circular no. 4 dated 2006 , and Haryana Minor Mineral Concession, Stocking, Transportation of Minerals and Prevention of Illegal Mining Rules -2012."the computation of FA is based on the area put to use and area considered fully reclaimed . The particulars of area are as below-.

Table indicating the break-up of areas in the Mining Lease for calculation of Financial Assurance

S no.	Particulars	Area put on use at start of plan in hect.	Additional requirement of area during plan period in hect.	Total Area in hect.	Area considered as fully reclaimed & rehabilitated in hect.	Net area considered for calculation in hect.
1	Area under mining	0.00	44.00	44.00	NIL	44.00
2	Storage for top soil	0.0	0.0	0.0	Nil	0.0
3	Waste dump site	0.0	0.0	0.00	Nil	0.00
4	Mineral storage	0.0	0.0	0.0	Nil	0.0
5	Infrastructure (work shop, administrative building etc.), electric lines.	0.0	0.0	0.0	0.00	0.0
6	Road (Kachha way)	0.00	0.00	0.00	Nil	0.00
7	Railways	Nil	Nil	Nil	Nil	Nil

8	Mineral separation plant	Nil	Nil	Nil	Nil	Nil
9	Township area	Nil	Nil	Nil	Nil	Nil
10	Undisturbed	0.0	10.0	10.0	0-00	
11	Afforestation	0.00	0.00	0.00	0.00	0.0
12	Others (green belt)	4.0	0.0	4.00	0.0	0.0
	Grand Total	**4.0**	**34.00**	**44.00**	**0.0**	**44.00**

CALCULATION OF FINANCIAL ASSURANCE

The financial assurance is applicable for the area put to use by project proponent and area reclaimed and habilitated under the provisions .The total broken area at the end of the scheme will be 44.0 hectares .The calculation of financial assurance will be based on the provisions made by state govt. as per Financial security under Haryana Minor Mineral Concession, Stocking, Transportation of Minerals and Prevention of Illegal Mining Rules, 2012 .The FA is calculated @15000/- per hectare or minimum to Rs.100000/- in case of minor minerals .The same is required to be deposited at the grant of mining lease . accordingly, financial assurance is commuted as under:

Rs 15,000/- X 44.00 = Rs 6.66,000/- (Rupees Six Lacks Sixty Six Thousands only)

In case of any deficit amount the Project proponent will comply and deposit in account of Department of Mines and Geology department , Government of Haryana

9.0 CERTIFICATE

It is enclosed with the report.

10.0 PLAN AND SECTION

Plan and section are prepared and enclosed with the mining plan.

IT IS CERTIFIED THAT THIS PLAN IS CORRECT TO THE BEST OF MY KNOWLEDGE

Pinkcity Mining Consultancy Pvt Ltd
RQP/ADM/145/2013/B

Dated-3/8/2023
Place- Jaipur

(Govind Singh)
B.E. Mining (1974)
Qualified Person

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