BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
PRINCIPAL BENCH, NEW DELHI
O.A. NO. 752 OF 2023

IN THE MATTER OF:

Narender Kumar … Applicant

Versus

Union of India & Ors. … Respondents

INDEX

SAURABH RAJPAL

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Place: NEW DELHI

DATE:02.03.2026

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,

PRINCIPAL BENCH, NEW DELHI

O.A. NO. 752 OF 2023

IN THE MATTER OF:

Narender Kumar … Applicant

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OBJECTIONS ON BEHALF OF RESPONDENT NO. 10

TO JOINT COMMITTEE REPORT

DATED 09.12.2025

MOST RESPECTFULLY SHOWETH:

1. That the present Original Application filed by the Applicant alleged that Respondent No.10 had carried out mining much in excess of permissible limit and in violation of EC conditions. The allegations so levelled against the Respondent No. 10 were based on HARSAC Report dated 06.06.2022 and termination notice dated 22.08.2023 issued by the Mining Officer, Mines & Geology Department, Panchkula.
2. In pursuance of the OA filed, this Hon'ble Court while issuing notice vide Order dated 04.01.2024, constituted a Joint Committee comprising of Member Secretary, CPCB, Director Department of Mines and Geology, State of Haryana, Member Secretary, HSPCB, Representative Inspector

General, vigilance Department, State of Haryana as also the District Magistrate, Panchkula.

3. That the Joint Committee has filed 3 reports in the present matter. The same are as follows;

   (i) Interim Report dated 28.02.2024

   (ii) Report dated 11.11.2024

   (iii) Supplementary and final report of the Joint Committee dated 09.12.2025

4. The following are the objections to the Report dated 09.12.2025;

   i. That after the submission of objections by the project proponent to the report dated 11.11.2024 on the grounds that;

      - the old mining plan had been considered instead of new mining plan which was in vogue,
      - quantum of legal mining done during the period of 20.03.2020 to 11.05.2022 was not considered,
      - quantity of overburden not considered, and
      - quantum of illegal mining done prior to the contract of the present proponent was not taken into account.

   Accordingly, the joint committee filed a fresh HARSAC report dated 18.08.2025 (**Annexure 3**).

ii. At the very outset the HARSAC Report (@ page 203) submitted that despite repeated requests Department of Mines and Geology did not provide complete reference data sets. The information requested by HARSAC can be found in email dated 27.01.2025 (@pg.243). HARSAC in its emails (@ pg. 248 to 250) repeatedly requested for the relevant information to be provided but the same as per HARSAC was not provided. It stated that communication so far was incomplete and ***"not suitable to draw any conclusion on Rattewali issue".*** Inspite of this, HARSAC proceeded to file a report with incomplete information that made drawing any conclusion unsuitable.

iii. However, HARSAC after providing the caveat of lacking essential and integral information proceeded to stipulate that its Report dated 18.08.2025 provides ***"conclusive evidence of excessive, illegal and unscientific mining in Rattewali block"***.

iv. On merits, the HARSAC Report dated 18.08.2025 is inter-alia liable to be not considered for the following reasons;

(a) HARSAC relied upon river bed levels of revised mining plan, DGPS survey, Geospatial inputs to arrive at volumetric analysis of mined material during 2019-2024 (**@pg 216**). No on ground survey or analysis has been conducted by HARSAC or any other 3rd agency despite an objection having been earlier raised and

duly recorded by the Joint Committee in its Report dated 11.11.2024 (**ref. pg. 490 (ii)**).

(b) HARSAC **@pg 208** states that although the earlier Report dated 06.06.2022 was based on the old mining plan, which was never implemented, the volume ascertained was correct. However, this finding of HARSAC is against the Minutes of the Meeting dated 24.07.2024, wherein the Director CPCB informed the Joint Committee that there were discrepancies/errors in interpretation of HARSAC Report, Conditions of Environmental Clearance and Approved Mining Plan. Therefore, quantum of illegal mining estimated in the previous report needs a review by the Joint Committee. (**Ref. to Pg 37-38**).

(c) The revised Mining Plan provides elevation value range from 358m to 376. m. This elevation value is required to be applied along with the relevant point-wise elevation and benchmarks applicable to the mining site. In the present Report neither had been provided and thus, none were applied.

(d) EMGSM-2020 provides the methodology applicable to calculating volume of a mining site. It states;

"***The contour and the elevation benchmarks will provide the baseline data for assessing the pre and post-study period scenario.***

Xxx

The bench plates shall be available for use during the mining period as reference for all mining activity. Reference pillar may also be used in place of Bench Plates with visible and readable demarcation on the ground as common reference points to control the topographic survey and mining activity.

Xxxx

It is preferred to do ground-truthing at minimum 5 locations spread evenly across the lease area."

Thus, it is clear that in the absence of this relevant information and calculation of volume of extraction is wrong and incorrect and thus unreliable.

(e) In light of the above, a reference of table 2 and table 3 (**@pg 209-210**) would show that HARSAC failed to apply the methodology of calculation of volume as provided by MoEF&CC in the EMGSM, 2020 and instead proceeded to simplicitor subtract the Reference Contour of 2018 with Reference Contour of 2022 to arrive at the elevation difference. On the basis of this elevation difference, area in square meter was calculated and assuming the bulk density to be 2 or 2.6, the alleged mineral extracted has been calculated.

(f) Satellite images for the period of 2018-2024 are depicted in Figure 4 titled as "Progression of mining activities outside lease boundary during 2018-2024". A careful perusal of the satellite images *prima facie* shows that mining signature can be seen on both sides of the Mining Site. However, the images did not consider that 10 FIRs had been registered since the year 2017-2020 in the area registered by the Mining Department itself under section 21(4) Mines and minerals Act, section 379 IPC against individuals responsible for mining outside the mining area. (**ref. pg.455-458**)

Further, satellite image for the years 2023 and 2024 shows mining signature downstream from the Mining site. This is because the said area which comprises of Village Shamtoo and Rattewali had been allocated on 23.02.2018 to M/s Starex Minerals to operate a mining site. Accordingly, an EC was issued on 16.08.2022 and mining operations began on 19.10.2022. A copy of the LOI and EC of Shamtoo I is annexed herewith as **Annexure 1 and 2** respectively.

(g) That HARSAC has used a mean elevation from a contour map of 2018. By projecting a theoretical mean over the entire horizontal slice of the 2022 Digital Elevation Model (DEM), the methodology assumes a flatness that likely did not exist, thereby

converting natural terrain undulations into calculated "illegal extraction volume". If the actual virgin surface in 2018 was physically lower even by centimeters that the mathematically averaged "mean elevation", the calculated depth of excavation is artificially inflated.

A copy of the Expert Opinion of Dr. Virat Arora is annexed herewith as **Annexure 3**.

A copy of the Expert Opinion of Mr. Deepak Gaur is annexed herewith as **Annexure 4**.

(h) While concluding its Report, HARSAC, reiterates the lack of requisite information and positively concludes that there is illegal mining in the Rattewali Block, however, concludes that it be ensured by the Mining Officer whether the illegal mining has occurred at the hands of the Project Proponent or someone else. (**@pg 218-219**).

(i) That in light of the submissions made herein as well as the affidavits of the experts, it is most humbly submitted that the present HARSAC Report dated 18.08.2025 is disputed as being illegal, unscientific, based on conjectures and incomplete information and therefore, any reliance upon the same is erroneous.

(j) It is further submitted that the amount calculated as alleged illegally mined mineral to the extent of 10332073.23 MT is denied in view of the findings of the Expert as well as the admissions of lack of relevant information available with HARSAC.

(k) Accordingly, the alleged extent of illegal mining in financial terms being Rs.216,97,35,378.00/- is also denied being wrong and incorrect. Additionally, it is submitted that the figure of Rs.216,97,35,378.00/- while being wrong is further grossly exaggerated and prejudicial to the Respondent No.10. It is submitted, that the alleged figure has been arrived at after calculating the same on an incorrect value of the mineral. As per Orders passed by the Director General, Mines and Geology, Haryana, the fine imposed as per price of mineral is calculated at Rs.57/- per MT, whereas, in the present case, the fine has been calculated at Rs.150/- per MT as price of mineral along with Rs.50/- per MT towards Royalty. It is submitted that the values upon which the alleged financial loss is calculated has been exaggerated with the intention to prejudice the answering Respondent. The Department has on one hand held the mineral price at Rs.57/- per MT while imposing penalty on other units

while for the answering Respondent the mineral is calculated at Rs.150/- per MT.

A copy of the Reply to RTI Application dated 23.02.2026 and Order are annexed herewith as **Annexure 5**.

5. In addition to the earlier objections to the Report dated 11.11.2024 which maybe read as part and parcel of the present objections, the following additional objections may also be considered inter-alia;

Sr.No.	Particulars	Quantity of mined mineral	Reasons for dispute
A.	Total material illegally extracted by PP during 20.03.2020-11.05.2022, after adjusting legally extracted material from 47,66,079.68	29,22,079 MT	The quantity does not consider the OB/Waste. Reliance is placed on EC **@ pg74** titled Land Reclamation which clearly provides for treatment of Overburden generated. Further, the said figure of 29,22,079 is derived from the original figure of 47,66,079.68, which was provided in Report dated 06.06.2022 which is admittedly based on the old mining plan that was never implemented.
B.	Illegally extracted mineral as per survey dated 11.10.2022	293923.00 MT	This figure is attributed to mining done beyond Pillar 1 and Pillar 17. As per **Interim Report of JC @ pg346** 1.During inspection of the JC on 8.2.2024, it was found that mining has been done within

			pillars installed by the Revenue Department and Mining Department and same has been verified by the Tehsildar, Panchkula that no mining was done beyond the pillars.
C.	illegally extracted quantity as per survey conducted on 15.06.2023	1644500 MT	These were attributed to mining beyond Pillar 1, 2 and 17. As per **Interim Report of JC @ pg346** 1.During inspection of the JC on 8.2.2024, it was found that mining has been done within pillars installed by the Revenue Department and Mining Department and same has been verified by the Tehsildar, Panchkula that no mining was done beyond the pillars.
D.	Additional illegal mining was also reported by Mining Department on the basis of survey conducted during inspection on 15.5.2024	18828 MT	This was disputed by the private surveyor of the PP and accordingly, the Joint Committee had referred the matter to 3rd party agency such as DRIISHYA, HARSAC. (**Ref. to pg 516**) It is pertinent to mention that Minutes of the Meeting dated 24.07.2024 clearly records that the said report of DRIISHYA was ready however, the same has not been placed on record till date. Thus, the said figure of

			18828 MT cannot be considered.

(i) It is denied that the PP has mined a total area of 30.84 hectares. The said assessment of mining has been arrived at by HARSAC on the basis of satellite images which as mentioned hereinabove is inaccurate and has not depicted the clear on ground picture.

Thus, it is submitted that the Environmental Compensation of Rs.323,65,86,533/- imposed by Joint Committee vide Report dated 11.11.2024 be set aside as having been calculated on the basis of incorrect scientific analysis. Similarly, it is submitted that the amount of Rs.216,97,35,378/- calculated as loss in financial terms on account of actual value of mined material, loss of GST and loss of royalty is wrong and the same be set aside in view of the submissions made hereinabove.

6. Consequently, it is prayed that, this Hon'ble Tribunal may be pleased to:

(a) Reject the Report dated 18.08.2025 submitted by HARSAC and Report dated 09.12.2025 of the Joint Committee being untenable and scientifically incorrect;

(b) Direct the closure and termination of all proceedings having been initiated upon the Report dated 06.06.2022;

(c) Direct restoration of the mining operations of the answering Respondent so as to enable it to undertake the exercise of extraction of boulder, gravel and sand in terms of the letter of intent dated 16.6.2017 and EC dated 21.2.2020;

(d) Consequently, this Hon'ble Court may direct that the total time period during which the operation of the Answering Respondent remained suspended, may be excluded from calculating the 7 years period of contract as per the letter of intent and EC dated 21.2.2020.

Filed by

SAURABH RAJPAL
COUNSEL FOR RESPONDENT NO. 10
D-291, 2ND AND 3RD FLOOR,
DEFENCE COLONY
Email: advocatesaurabhrajpal@gmail.com
Mob: 9971792885

Place: NEW DELHI

DATE:20.03.2026

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

O.A. 752/2023

IN THE MATTER OF:

NARENDER KUMAR ... APPLICANT

VERSUS

UNION OF INDIA & ORS. ... RESPONDENTS

AFFIDAVIT

I, Gurpreet Singh Sabharwal, s/o Lakhmir Singh Sabharwal, aged 49 years, R/0 3, Sadashiv Properties, Katras Road, Bank More, Dhanbad, Jharkhand, presently residing at House No.8, Sector 6, Panchkula, Haryana, being the Authorized Representative of Respondent No. 10- Tirupati Roadways do hereby solemnly affirm and declare as under:

1. That I am the applicant in the instant application and I am well conversant with the facts and circumstances of the case and thus competent to swear this affidavit.

2. That the accompanying reply have been drafted under my instructions which I have read and understood. I further state that the averments made therein are true and correct to my knowledge and belief.

3. That the Annexures filed along with the reply are true copy of their respective originals.

DEPONENT

Verification

Verified at Chandigarh on this 2nd day of March, 2026 that the contents of my aforesaid affidavit are true and correct to my knowledge and belief. No part of it is false nor anything material has been concealed therefrom.

DEPONENT

NOTARY
R.C. TANEJA
NOTARY
#1459, Sec-11
Panchkula, Haryana
Regd. No. 2395
GOVT. OF INDIA

ATTESTED
R.C. TANEJA
NOTARY
PANCHKULA (HARYANA)
2/3/26

02 MAR 2026

ANNEXURE -1 15

Department of Mines and Geology, Haryana
30-Bays Building, Sector:17, Chandigarh.

Registered

From

The Director
Mines & Geology, Haryana,
30 Bays Building, Sector-17, Chandigarh.

To

M/s Starex Minerals,
J. S. Heights, Block-A,
Opp. Shivnath Mahindra Service Center,
Dhamdha Road, Khapri, District Durg.

Memo No. DMG/HY/Cont./ Shamtoo-1 Block/PKL B-11/2018/ 904
Dated Chandigarh, the 23-2-2018

Subject: Acceptance of the highest bid in respect of the Boulder, Gravel and Sand minor mineral mine of "Shamtoo-1 Block/PKL B-11" having tentative area of 46.50 hectares in the district Panchkula, offered in e-auction held on 07-08.02.2018/issuance of Letter of Intent (LoI)-regarding.

You participated in the e-auction held on 07-08.02.2018 on the State Government web portal http://haryanaeprocurement.gov.in after accepting the terms and conditions of the auction notice issued vide notification no. DMG/HY/e-Auction/PKL/2015/140 dated 09.01.2018 in order to obtain mining contract of minor mineral mine of the district Panchkula. You offered the highest bid of Rs. 06,09,50,000/- (Rs. Six crore nine lacs fifty thousand only) per annum against the Reserve Price of Rs. 06,09,00,000/- for obtaining the Mining Contract of Minor Mineral Mine namely 'Shamtoo-1 Block/PKL B- 11' for extraction of Boulder, Gravel and Sand having tentative area of 46.50 hectares. The details of the khasra numbers of the tentative area under above said Mining Block is attached as Annexure 'A'.

2. You are hereby informed that the State Government has accepted the highest bid of Rs. 06,09,50,000/- (Rs. Six crore nine lacs fifty thousand only) per annum offered by you in respect of 'Shamtoo-1 Block/PKL B- 11' under the provision of Haryana Minor Mineral Concession, Stocking, Transportation of Minerals & Prevention of Illegal Mining Rules, 2012 (State Rules). Accordingly, you have become the successful bidder in respect of 'Shamtoo-1 Block/PKL B- 11' of the district Panchkula.

3. The State Government having accepted the aforementioned highest bid offered by you, the Department is pleased to issue this Letter of Intent (LoI) in your favour in respect of the Mining Block/area namely 'Shamtoo-1 Block/PKL B- 11' subject to the following terms and conditions:

(i) The period of the contract shall be 09 years and 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 this communication of acceptance of highest bid/ issuance of Letter of Intent, whichever is earlier;

(ii) You may note that the detail of the area of the mining block is tentative and was notified on "as is where is basis" (refer condition no. 4 of the auction notice). In

case of any inadvertent mistake, if any, the same would be rectified/ corrected before execution of the agreement (refer condition no. 3 of the auction notice);

(iii) No request regarding reduction in bid amount on account of reduction in land/ area of the Mining block, including due to change in description of khasra numbers/ location etc. at any stage will be entertained of compliance of applicable laws/ restrictions. Needless to state this also includes the changes, if any, as per condition no. 3 of auction notice.

(iv) The amount of the highest bid i.e. Rs. 06,09,50,000/- (Rs. Six crore nine lacs fifty thousand only) per annum shall be the "Annual Contract Money" payable by you as the contractor money in the manner prescribed in the contract agreement to be executed on form MC-1 appended to State Rules.

(v) The above said annual contract money shall be increased at the rate of 25% on completion of each block of three years. Accordingly, the year-wise amount of the annual contract money shall be as per details given below:

Sr. No.	Year of the contract Period	Annual Contract Money
1	First Year	Rs. 06,09,50,000/-
2	Second Year	Rs. 06,09,50,000/-
3	Third Year	Rs. 06,09,50,000/-
4	Fourth Year	Rs. 07,61,87,500/-
5	Fifth Year	Rs. 07,61,87,500/-
6	Sixth Year	Rs. 07,61,87,500/-
7	Seventh Year	Rs. 09,52,34,375/-
8	Eighth Year	Rs. 09,52,34,375/-
9	Ninth Year	Rs. 09,52,34,375/-

(vi) As per the terms and conditions of the grant, you are liable to deposit Rs. 01,52,37,500/- i.e. equal of the annual bid amount as "Security deposit" out of which you have already deposited an amount of Rs. 60,95,000/- (Rs. Sixty lacs ninety five thousand only) i.e. equal to 10% of the annual bid amount as 'initial bid security' after the conclusion of e-auction. The balance amount of Rs. 91,42,500/- of the bid security i.e. 15% of the annual bid amount alongwith one month's advance contract money shall be deposited before commencement of the mining operations or on expiry of period of 12 months, whichever is earlier.

(vii) You shall execute an Contract Agreement Deed in Form MC-1 appended to the Haryana Minor Mineral Concession, Stocking, Transportation of Minerals & Prevention of Illegal Mining Rules, 2012 (The State Rules, 2012) within a period of 90 days from the date of issuance of this communication/ grant of LoI.

(viii) The Contract Agreement executed shall be got duly registered under relevant law with concerned Registering Authority and you shall be liable to pay applicable stamp duty and registration fee etc. as per the applicable rates and as demanded by the Registering Authority/Revenue Department at the time of Registeration.

(ix) In case you fail to execute the agreement Deed within the prescribed period of 90 days, this LoI shall be deemed to have been revoked and the amount of initial bid security deposited at the time of auction shall be forfeited. Further, the

balance amount of 15% towards the bid security, amounting to **Rs. 91,42,500/-** being the 15% of the annual bid amount, shall be recovered as arrears of land revenue and, you, as the LoI holder/ defaulter, shall be debarred from participation fin any future auctions for a period of 5 years.

(x) You shall also furnish a solvent surety for a sum equal to the amount of the annual bid for execution of the Agreement. In case the surety offered by the contractor(s) during the subsistence of the contract is not found solvent, the contractor(s) shall offer another solvent surety and a supplementary deed shall be executed to this effect.

(xi) After execution of Agreement, either before commencement of the mining operations or before expiry of the period of 12 months from the date of issuance of this LoI, whichever is earlier. In case of failure to deposit the balance 15% amount towards security [as required under clause (vi) above] the acceptance of bid/ issuance of LoI/ execution of agreement shall be deemed to have been revoked and 10% amount deposited towards as initial bid security at the time of auction shall stand forfeited. Further, un-paid 15% amount towards security shall be recovered as arrears of land revenue and you shall be debarred from participation in any subsequent bids for a period of 5 years.

(xii) You shall be liable to deposit the contract money in advance at monthly intervals as per provisions of Contract Agreement i.e. from the date of commencement of the contract period.

(xiii) You shall also deposit/ pay an additional amount equal to 10% of the due contract money along with the monthly instalments towards the 'Mines and Mineral Development, Restoration and Rehabilitation Fund.

(xiv) You shall also be liable to pay advance income tax as per provisions of Section 206(c) of income tax act in addition to contract money, payable as per terms and conditions of contract agreement.

(xv) On enhancement of the contract money with the expiry of every three years period, you shall deposit the balance amount of security so as to upscale the security amount equal to 25% of the revised annual contract money as applicable for one year with respect to the next block of three years. No interest, whatsoever, shall be payable on the security amount deposited under the prescribed security head of the government;

(xvi) You shall prepare a Mining Plan along with the Mine Closure Plan (Progressive & Final) as per chapter 10 of the State Rules for the "Mining Block" and shall not commence mining operations in any area except in accordance with such Mining Plan duly approved by an officer authorised by the Director, Mines & Geology, in this behalf.

(xvii) Further, the actual mining will be allowed to be commenced only after prior Environment Clearance is obtained by you as the LoI holder/ Mining contractor for the Mining Block from the Competent Authority as permitted by the competent Authority required under EIA notification dated 14/09/2006, as

amended from time to time by the MoEF & CC, GoI and guidelines/ circulars issued in this behalf;

(xviii) The Mining Contractor to whom mining rights have been granted through this contract would also be liable to pay the following to the landowners to undertake mining operations:

(a) Annual rent in respect of the land area blocked under the concession but not being operated, and
(b) Rent Plus compensation in respect of the area used for actual mining operations.

(xix) The amount of annual rent and the compensations shall be settled mutually between the landowner and the mining contractor. In case of non-settlement of the rent and compensation, the same shall be decided by the District Collector concerned in accordance with the provisions contained in Chapter 9 of the "Haryana Minor Mineral Concession, Stocking, Transportation of Minerals & Prevention of Illegal Mining Rules, 2012";

(xx) The total mineral excavated and stacked by the concession holder within the area granted on mining contract shall not exceed two times of the average monthly production as per approved Mining Plan at any point of time;

(xxi) The Mining Contractor shall not stock any mineral outside the concession area granted on mining contract, without obtaining a valid licence as per provisions contained in Chapter 14 of the State Rules.

(xxii) The contractor shall not carry out any mining operations in any reserved/ protected forest or any area prohibited by any law in force in India, or prohibited by any authority without obtaining prior permission in writing from such authority or officer authorized in this behalf. In case of refusal of permission by such authority or officer authorised in this behalf, contractor(s) shall not be entitled to claim any relief in payment of contract money on this account;

(xxiii) Following are the general/ special conditions applicable for excavation of minor mineral(s) from river beds in order to ensure safety of riverbeds, structures and the adjoining areas:

(a) No mining would be permissible in a river-bed up to a distance of five times of the span of a bridge structure on up-stream side and ten time the span of such bridge structure on down-stream side, subject to a minimum of 250 meters on the up-stream side and 500 meters on the down-stream side;
(b) 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 authorised by him;
(c) The maximum depth of mining in the river-bed shall not exceed three meters from the un-mined bed level at any point in time with proper bench formation;
(d) Mining shall be restricted within the central 3/4th width of the river/ rivulet;

Department of Mines and Geology, Haryana
30-Bays Building, Sector:17, Chandigarh.

(e) No mining shall be permissible in an area upto a width of 500 meters from the active edges of embankments in case of river Yamuna, 250 meters in case of Tangri, Markanda and Ghaggar and 100 meters on either side of all other rivers/ rivulets. (this clause is applicable for mining outside river bed area);

(f) 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 Department, may be made applicable to the mining operations in river-beds.

(xxiv) 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. Further, the depth of excavation of mineral shall not exceed nine meters (9m) at any point of time. (This clause is applicable for mining outside river bed area);

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

(xxvi) The contractor shall be under obligation to carry out mining in accordance with all other provisions as applicable under the Mines Act, 1952. Mines and Minerals (Development and Regulation) Act, 1957, Indian Explosive Act, 1884, Forest (Conservation) Act, 1980 and Environment (Protection) Act, 1986 and the rules made thereunder, Wild life (Protection) Act, 1972, Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981;

4. Accordingly, you are advised to submit the Draft Contract Agreement along with other requisite documents including a solvent surety(s) for a sum equal to the amount of the annual bid for execution of the agreement, within a period of 90 days from the date of issue of this bid acceptance letter and the LoI.

2342

Mining Engineer
For Director, Mines & Geology
Haryana.

Endst. No. DMG/HY/Cont./ Shamtoo-1 Block/PKL B-11/2018/905 Dated 23.5.2018

A copy is forwarded to the following for information and necessary action please:-

1. The Chairman, Haryana State Pollution Control Board, Panchkula.
2. The Deputy Commissioner, Panchkula.
3. The Mining Officer, Mines & Geology Department, Panchkula. He is directed to ensure that proper and complete 'Draft Contract Agreement Documents' as required are submitted within stipulated period.

Mining Engineer
For Director, Mines & Geology
Haryana.

Department of Mines and Geology, Haryana
30-Bays Building, Sector:17, Chandigarh.

Annexure 'A'.

Sr. No.	Name of Block No.	Name of village	Details of Khasra Nos./Killa No.	Area (In Hect.)	Period (In Years)
1	Shamtoo 1 Block/PKL B 11	Shamtoo	55 min	46.50	09
		Rattewali	141 Min, 142, 143		

ANNEXURE -2

ENVIRONMENTAL CLEARANCE

PARIVESH

(Pro-Active and Responsive Facilitation by Interactive, and Virtuous Environmental Single-Window Hub)

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

To,

The owner
STAREX MINERALS
J.S. heights Block A,Opposite Shivnath Mahindra Service Centre,Dhamdha Road,Khapri,Durg -491226

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

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the SEIAA vide proposal number SIA/HR/MIN/73813/2018 dated 11 Apr 2022. The particulars of the environmental clearance granted to the project are as below.

1.	**EC Identification No.**	**EC22B001HR146175**
2.	**File No.**	SEIAA/HR/2022/153
3.	**Project Type**	New
4.	**Category**	B1
5.	**Project/Activity including Schedule No.**	1(a) Mining of minerals
6.	**Name of Project**	Gravel sand mining project at Shamtoo1 Block PKL B11
7.	**Name of Company/Organization**	STAREX MINERALS
8.	**Location of Project**	Haryana
9.	**TOR Date**	17 Dec 2018

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

Date: 16/08/2022

(e-signed)
S. Narayanan, IFS
Member Secretary
SEIAA - (Haryana)

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

This is a computer generated cover page.

State Environment Impact Assessment Authority, Haryana,
Bays No.55-58, Prayatan Bhawan, Sector-2 Panchkula.

Tel: 0172-2565232, 4043956
E-mail Id: seiaa-21.env@hry.gov.in

Subject: EC for Gravel and Sand mining project at Shamtoo-1 Block/PKL B-11" over an area of 46.5 ha for a peak production of 4,00,000 TPA at Village- Shamtoo & Rattewali, District – Panchkula, Haryana by M/s Starex Minerals.

This has reference to your Proposal No. SIA/HR/MIN/73813/2018 dated 17.03.2022 for seeking prior Environmental Clearance (EC) for the above project under the EIA Notification, 2006 along with submission of required Affidavits as well as Scrutiny Fee amounting of Rs. 1,50,000/- vide DD. No. 710114 dated 28.03.2022 in compliance of Haryana Government, Environment & Climate Change Notification No. DE&CCH/3060 dated 14th October, 2021. The proposal has been appraised as per prescribed procedure in the light of provisions under the EIA Notification, 2006 on the basis of the mandatory documents enclosed with the application viz., Form-1, Pre-feasibility, EIA/EMP Report, Public hearing/consultation and additional clarifications furnished in response to the observations of the State Expert Appraisal Committee (SEAC) constituted by MoEF & CC, GoI vide their Notification dated 21.02.2022 in its meeting held on 26.04.2022, 30.06.2022 and 25.07.2022. The project has been considered in **compliance of Orders dated 04.09.2018 passed by Hon'ble National Green Tribunal in O.A. No. 173 of 2018 wherein it is stated that "One of the conditions of every lease of mine or minerals would be that there will be independent environmental audit at least one in year by reputed third party entity and report of such audit be placed in public domain. In the Course of such Environmental audit "a three member committee of local inhabitants will also be associated. Composition of three members committee may be preferably Ex-servicemen, Former Teacher, Former Civil Servant. The committee will be nominated by the District Magistrate."**

2. The SEAC has examines the application and noted that this project involved in mining of Gravel and Sand Mining at Shamtoo-1 Block/PKL B-11" over an area of 46.5 ha for a peak production of 4,00,000 TPA at Village- Shamtoo & Rattewali, District – Panchkula, Haryana.

3. The details of project are as under:

1.	Online Proposal No	SIA/HR/MIN/73813/2018
2.	Category/Item no. (In Schedule)	1(a) Mining of Minerals (Non-Coal Mining) Category B1
3.	Area of Project	46.50 ha
4.	Date of LOI Granted by Mines & Geology Department, Haryana	23.02.2018
5.	Date of Approval of TOR by MoEF&CC	17.12.2018
6	Date of Approval of mine plan Granted by Mines & Geology Department, Haryana	04.09.2019
7	Location of Project	Village Shamtoo & Rattewali
8	Project Details Khasra No.	Shamtoo -55 min Rattewali-141 Min, 142, 143
9	Project Cost	Rs 21 Crores
10	Water Requirement	**Activity** | **Calculation** | **Round off**

		Figure in KLD
Drinking	@ 30 lpcd per labor 30 lt*69/1000= 2.0 KLD	2.0
Dust Suppression	Total approach road to be water sprinkled = 200 m 200 m*6m*0.5 *2 times/1000= 1.2 KLD	1.2
Plantation	15,500 plant (during plan period) 3,100/year @ 2 L/per plant= 3100*2.0 lt (1 lt twice a day) = 6200/1000= 6.2 KLD	6.2
Total		**9.4 or 10 KLD**

11	Environment Management Plan	INR 42 Lakhs (Capital Cost) INR 63 Lakhs (Recurring Cost)
12	CER Budget	12 Lakhs
13	Production	Sand Boulder and Gravel
14	Production Capacity	4,00,000 TPA
16	Corner Coordinates	

No.	Latitude	Longitude
A	30°38'33"N	76°59'18.8"E
B	30°38'33"N	76°59'31.85" E
C	30°38'31"N	76°59'32"E
D	30°38'31"N	76°59'34.3"E
E	30°38'29"N	76°59'31.5"E
F	30°38'19.7"N	76°59'29.4"E
G	30°38'19"N	76°58'26.95" E
H	30°38'11"N	76°58'24.5"E
I	30°38'3.5"N	76°58'24.5"E
J	30°38'2.5"N	76°59'29.2"E
K	30°38'59.2"N	76°59'26.7"E
L	30°38'1.1"N	76°58'23.5"E
M	30°38'00"N	76°58'21.8"E
N	30°38'54"N	76°59'21.8"E
O	30°38'54"N	76°59'29.2"E
P	30°38'44"N	76°59'29.2"E
Q	30°38'42"N	76°59'28.3"E
R	30°38'42"N	76°59'13.6"E
S	30°38'48"N	76°59'17.9"E
T	30°38'50"N	76°59'17.9"E
U	30°38'56"N	76°59'14.5"E
V	30°38'56"N	76°59'15.1"E
W	30°38'01"N	76°59'12"E
X	30°38'5.5"N	76°59'17.2"E
Y	30°38'09"N	76°59'14.7"E
Z	30°38'11"N	76°59'14.7"E
A1	30°38'15"N	76°59'19.2"E
A2	30°38'19"N	76°59'19.7"E
A3	30°38'21"N	76°59'18.4"E
A4	30°38'27"N	76°59'18.4"E
A5	30°38'31"N	76°59'19.1"E

16	Green Belt Plantation	**11.30 ha 33% of project area**
17	Machinery Required	Scrappers, JCB/Loaders etc, Water Tankers & Trucks/Tippers
18	Incremental Load with	

	Recept	**Backgro**	**Total***	**Resultant**

	respect of PM		**or**	**und Maximum Concentration ($\mu g/m^3$) PM10**	**Incremental Concentration ($\mu g/m^3$) PM10**	**Concentration ($\mu g/m^3$)**
		Mine site	--	79.15	8.03	87.18
		Rattewali	0.60Km SW	72.92	0.17	73.09
		Parwala	2.13Km SE	78.88	0.11	78.99
		Asrewali	5.18 Km NW	85.12	0.12	85.24
		Khetprali	3.56Km N	78.69	0.11	78.8
		Tarlokpur	2.64Km E	75.01	0.33	75.34
		Khangesra	4.23 Km SW	79.19	0.06	79.25
19	Power Requirement	**Elec**tric connection will be taken for office and security purpose from Electricity Board				
20	Power back	**DG set**				

Green Belt Plantation Plan

The Plantation will be done along haul road and at other places in village like gram panchayat, schools after consulting local authorities

Year	**No. of plants**	**Location**		
		Along approach road	**At other place in village like gram panchayat, schools after consulting local authorities**	**Village site & Coordinates**
1st	3,100	104	2,996	In school of village Rattewali – 30°38'13.51"N 76°58'56.13"E In any panchayat asset, Shamtoo 30°37'24.09"N 76°58'43.59"E
2nd	3,100	104	2,996	
3rd	3,100	104	2,996	
4th	3,100	104	2,996	
5th	3,100	104	2,996	
Total	**15,500**	**520**	**14,980**	

Details of Site Elevation

Lowest Elevation (mRL)	Highest Elevation	Working Depth (in meters)	Ground water table
336.65	338.50	1m	8-10 gl

Geological Reserves

Lease area in Ha.	**Total Proved geological reserve MT= Area * depth * BD (A)**	**Blocked area of 50m strip after each km, 25% blocked in river banks, lease boundary etc = ha.**	**Blocked Geological reserve MT**	**Total Mineable Reserves MT**
46.50	25,38,900	12.25	6,68,850	18,70,050

List of Machinery

1	Scrappers	3
2	JCB/Loaders etc	3
3	Water Tankers	4
4	Trucks/Tippers	3

Manpower Details

Sr. no	Designation	No of manpower
1	Manager Mines	1
2	Assistant Manager	1
3	Skilled Personnel	10
4	Un-skilled Personnel	10
	Total Manpower	22

Details of Mining

Sr. no.	Particulars	Details
1	Method Of Mining	Open Cast Semi-Mechanized
2	Geological Reserves	25,38,900
3	Mineable Reserves	18,70,050
4	Proposed Production	4,00,000
5	Elevation at Mine Site	338.50 to 336.65 AMSL
6	Bench Height	1 M
7	Bench width (average)	20 eters

Land use pattern

S. No.	Type of Land use	Present Land use (Ha.)	At the end of 5th Year (ha.)
1	Pit Area	0.00	0.00
2	Dump Area	0.00	0.00
3	Safety Zone	12.25	12.25
4	Infrastructure (Office, Temp. shelter etc) in restricted zone	0.00	0.00
5	Mineral Storage	0.00	0.00
6	Plantation	0.00	5.00
7	Un-worked	34.25	0.00
8	Naturally reclaimed area	-	34.25
Total lease area		**46.50**	**46.50**

EMP BUDGET

Sr. No.	Measures	Capital Cost (In Rs.) 2% of project cost	Recurring Cost/year (In Rs) 3% of Project Cost
		1st year	2nd to 7th Year
1.	Pollution Control Dust Suppression /Water Sprinkling	4,00,000	1,00,000
2.	Baseline Monitoring & Replenishment study	5,00,000	2,00,000

3.	Green belt development	15,00,000	3,00,000
4.	Maintenance of haul road	15,00,000	1,00,000
5.	RWH pits (6 pits) at panchayat assets in Village Shamtoo & Rattewali	3,00,000	1,00,000
Total		42,00,000	9,00,000

Social Part of EMP

Sl. No.	**Activity**	**Budget allocated (in Rs.)**
1	Financial aid for medical camp in Shamtoo & Rattewali village.(4 camp) @ Rs. 50,000/ camp in a year	2,00,000
2.	Financial Aid to Repair Anganbadi centers in Village Shamtoo & Rattewali	4,00,000
3.	Financial Aid for Repair community hall in Shamtoo & Rattewali village	4,00,000
4.	Providing Computers to School in Village Shamtoo & Rattewali	2,00,000
TOTAL		**12,00,000**

4. The State Expert Appraisal Committee, Haryana after due consideration of the relevant documents submitted by the project proponent and additional clarification furnished in response to its observations, have recommended this project for grant of environmental clearance.

5. The Case was taken up in the 144th meeting of SEIAA held on 08.08.2022. After having gone through the relevant records alongwith **replenishment study and Mining Plan approved and accepted by the Director, Mines and Geology Department, Haryana** and the recommendations on the same by the SEAC, the Authority decided to grant Environment Clearance, initially, **for a period of one year and up to one meter depth** under **Category B1, 1(a)** of under EIA Notification, 2006 and amendments thereof subject to the strict compliance with the following stipulations depicted below:-

A. Specific conditions:-

1. **PP shall submit the replenishment study of the area within one year after start of the project and shall not carry out mining more than 1 meter. It is also decided that after the receipt of replenishment study of the area, the further decision on the environment clearance will be taken accordingly by the committee**.
2. The PP shall construct the pucca link roads connected to the main road at the mining site before the start of mining.
3. The PP shall construct the Haul roads of width 10 meters.
4. The PP shall submit the approved Conservation Plan from the Competent Authority before the start of the project.
5. The PP shall provide only one exit and one entry to the Mining Project area and all the mining shall be dispatched through E-billing.
6. The PP shall maintain 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.
7. The PP shall restrict mining within the central 3/4th width of the river/rivulet.

8. The PP shall not permit any mining in an area up to width of 500 meters from the active edges of embankments in case of River Yamuna, 250 mtrs.in case of Tangri, Markanda and Ghaggar and 100 mtrs.on either side of all other rivers/rivulets.
9. The PP agrees and submitted the undertaking that no Boulder, gravel shall be mined in the mining lease area.
10. The PP shall develop 11.30 Ha(33%)for Green Area development in the project area.
11. Separate wet and dry bins must be provided in each unit and at ground level for facilitating segregation of waste. Solid Waste shall be segregated into wet garbage and inert materials. Wet Garbage shall be composted in Organic waste convertor. Adequate area shall be provided for solid waste management within the premises which will include area for segregation, composting. The Inert waste from the project will be sent to dumping site.
12. The PP shall maintain the garland drains in the project area and catchment area for preserving overburden and dump mining.
13. Traffic management plan as submitted shall be implemented in letter and spirit. Apart, a detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms.radius of the project is marinated and improved upon after the implementation of the project.
14. The PP shall not carry out the mining below 1meter depth in the project area as the replenishment study is not carried out.
15. The PP shall submit the scientific replenishment study for the project site in the river bed within 1 year after the start of the mining at the project site.
16. The Project Proponent shall obtain all necessary clearance/permission from all relevant agencies before commencement of work.
17. Consent to establish/operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
18. The PP shall take precautions to suppress the dust in and around the mining site. The PP shall use mixed cannon water sprinkle for dust suppression instead of conventional sprinkles for efficient dust suppression.
19. The PP shall also provide the Anti smog gun mounted on truck in the project for suppression of dust and shall use the treated water, if feasible.
20. The PP shall create environment division unit in the project for implementing the conditions of Environment clearance.
21. The PP shall obtain the permission regarding withdrawal of ground water from CGWA before the start of the project and also obtained the CTO from HSPCB after the approval from CGWA.
22. The PP shall adhere to the approved mining plan and approved closure plan by the competent authority.
23. Action plan for the public hearing issues shall be complied in letter and spirit.
24. The Proponent will provide adequate sanitary facility in the form of mobile toilets to the labours engaged for the project work.
25. The Project proponent shall comply all the measures, conditions suggested in the approved mining plan with post closure mine plan, Environmental Management Plan (EMP) in a letter and spirit.
26. The PP shall restrict maximum mining depth 2meters above the Ground Water Table.
27. Any change in stipulations of EC of the approved mining plan will lead to Environment Clearance void-ab-initio and PP will have to seek fresh Environment Clearance
28. The PP shall comply with Sand Mining Rules 2016 and NGT directions from time time.

B: Statutory Compliance:-

1. This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.
2. The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August,2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India &Others before commencing the mining operations.
3. The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India &Ors.

4. This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.
5. This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the Project.
6. Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish/Consent to Operate from the concerned State Pollution Control Board/Committee.
7. The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS), Mines & Geology Department, Haryana and Indian Bureau of Mines from time to time.. Also adhere to Haryana Minor Mineral Concession, Stocking, Transportation of Minerals and Prevention of Illegal Mining Rules, 2012.
8. The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it.
9. The Project Proponent shall follow the mitigation measures provided in MoEF& CC Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
10. The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.
11. A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.
12. State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
13. The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEF&CC Regional Office for compliance and record.
14. The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

I. Air Quality Monitoring and Preservation

1. The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatologically data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. $PM_{10,}$ $PM_{2.5}$, NO2, CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.
2. Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM_{10} and $PM_{2.5}$ are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust

suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF&CC/Central Pollution Control Board.

II. Water Quality Monitoring and Preservation

1. In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEF&CC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.
2. Regular monitoring of the flow rate of the springs and perennial Nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
3. Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezometer installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
4. The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial Nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEF&CC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.
5. Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J-20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.
6. Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEF &CC annually.
7. Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by

concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.

8. The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF& CC and State Pollution Control Board/Committee.

III. Noise and Vibration Monitoring and Prevention

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

IV. Mining Plan

1. The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.
2. The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change and SEIAA for record and verification.
3. The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEF&CC and its concerned Regional Office.

V. Land Reclamation

1. The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.
2. The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the

guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.

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

VI. <u>Transportation</u>

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

VII. <u>Green Belt</u>

1. The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within

first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted irrespective of the stipulation made in approved mine plan.

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

VIII. <u>Public Hearing and Human Health Issues</u>

1. The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEF&CC Regional Office and DGMS on half-yearly basis.
2. The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.
3. The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium-Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminum, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only

conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).

4. The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities ,(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1),Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEF&CC annually along with details of the relief and compensation paid to workers having above indications.
5. The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
6. Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.
7. The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.

IX. Corporate Environment Responsibility (CER)

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

X. Miscellaneous

1. The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF & CC.
2. The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
3. The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEF&CC &its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.
4. A separate ‘Environmental Management Cell’ with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF & CC.

5. The concerned Regional Office of the MoEF&CC including other authorized organization shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) including other authorized officer by furnishing the requisite data/information.
6. The SEIAA, Haryana reserves the right to add new conditions, modify/annual any of the stipulated conditions and/or to revoke the clearance in implementation of any of the condition stipulated by SEIAA, Haryana or any other competent authorities is not satisfactory.
7. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract under the provisions of Environment (Protection) Act, 1986.
8. All the other statutory clearances such as the approvals for storage of diesel from the Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and wildlife (Protection) Act, 1972 etc, shall be obtained, as may be applicable, by the project proponent from the competent Authority before start of mining operation.
9. That the grant of this EC is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time being in force, rests with the industry/unit/project proponent. 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 National Green Tribunal Act, 2010.
10. The Project Proponent should intimate to the Authority as well as to the quarter concerned in case of any change in the present communication address.

(S. Narayanan, IFS)
Member Secretary,
State Level Environment Impact
Assessment Authority, Haryana, Panchkula.

A copy of the above is forwarded to the following:

1. Director (IA Division), MoEF & CC, GoI, Indira Paryavaran Bhavan, Zor bagh Road-New Delhi-110003.
2. Chairman, State Environment Impact Assessment Authority, Bay No. 55-58, Prayatan Bhawan, Sector-2, Panchkula, Haryana
3. Chairman, Haryana State Pollution Control Board, C-11, Sector-6, Panchkula.
4. Director, Environment & Climate Change Department, Haryana, 2nd floor, Paryatan Bhawan Bay No. 55-58, Sector-2, Panchkula, Haryana
5. Director Mines & Geology Department, Haryana at Plot No. 9, DHL Square, 2nd floor, IT Park, Sector-22, Panchkula.
6. Regional Office, Ministry of Environment, Forests & Climate Change, Govt. of India, Bay's No. 24-25, Sector 31-A, Dakshin Marg, Chandigarh-160018.
7. Concerned File/ Office Copy

(S. Narayanan, IFS)
Member Secretary,
State Level Environment Impact
Assessment Authority, Haryana, Panchkula

Signature Not Verified
Digitally signed by Shri S. Narayanan, IFS
Member Secretary
Date: 8/16/2022 4:43:20 PM

State Environment Impact Assessment Authority, Haryana,
Bays No.55-58, Prayatan Bhawan, Sector-2 Panchkula.

Telephone No. 0172-2565232
E-mail ID: sciaa-21.env@hry.gov.in

Memo No: SEIAA(163)/HR/2023/514 Dated: 07/08/2023

To

M/s Starex Minerals
Address: J.S Heights Block-A,
Opposite Shivnath Mahindra service Centre,
Dhamdha Road,Khapri Chhattisgarh -491226
Email: starexmineral.env@gmail.com

Subject: **Extension of Validity of EC for Mining Project Shamtoo-1/PKL B-11 at Village Shamtoo & Rattewali, District Panchkula, Haryana by M/s Starex Minerals.**

1.	Proposal	Extension of Validity of Environment Clearance (EC)
2.	Project Proponent	**M/s Starex Minerals**
3.	Location & Category of the Project	Shamtoo-1/PKL B-11 at Village Shamtoo & Rattewali, District Panchkula **1(a)**
4.	Project Cost	**Rs. 21 Crore**
5.	Project Consultant	P and M Solutions
6.	NABET, ACCREDITATION	**NABET/EIA/1922/IA0053** **Validity: 01/09/2023**

The said Proposal was submitted to the Authority, (SEIAA) (as **online Proposal) vide No. SIA/HR/MIN/301567/2023 dated 25.06.2023** for seeking **Extension of Validity of EC letter dated 16.08.2022** under Category 1(a) of EIA Notification dated 14.09.2006. The Project Proponent has deposited Scrutiny fee of **₹ 1,50,000/- vide DD No. 829785 dated 28.06.2023** (in compliance of Haryana Government, Environment & Climate Change Department Notification No. DE&CCH/3060 dated 14.10.2021).

Appraisal & Recommendations of SEAC:

The said case was taken up during **272nd meetings of SEAC held on 14.07.2023** and the Appraisal Committee (SEAC) made recommendations to the Authority for Grant of **Extention of Environmental Clearance to the project upto validity of approved Mining Plan** and upto **depth of 1 mtr** and for **quantity of 4,00,000 TPA,** as already approved in the EC issued for this Project dated 16.08.2022.

Findings and Decision of THE AUTHORITY (SEIAA):

The said Proposal was taken up during **163rd Meeting of SEIAA held on 02.08.2023.**

The Authority after having seen the relevant record placed on the file and considering the recommendation of the Appraisal Committee (SEAC), observed that report regarding Replenishment issued by the State Geologist, Mines & Geology Department, Haryana appears to be un-realistic and fragile on facts. This needs a careful appraisal and realistic recommendations; in future.

With regard to Grant of Extension of validity of period for the Mining Activities, requested by the Project Proponent and recommended by the Appraisal Committee is considered by the Authority subject to the followings as under:

Stipulation imposed in the Earlier Environment Clearance letter dated 16.08.2022	**Unchanged**
Depth of the Mining Material	**1 meter (No Change)**
Type of Material allowed to be mined at the Project Site	**As per Environment Clearance letter dated 16.08.2022 (No change)**
Production Capacity	**4,00,000 TPA (No Change)**
Validity	**As per Mining Plan approved by Mines & Geology Department, Haryana**

Therefore, the Authority **decided to accord approval to the proposal,** subject to the condition that Mining activities shall be carried out strictly in accordance with **Sand Mining Guidelines, 2020 issued by MOEF & CC, GOI.**

Accordingly, the case is disposed of.

State Environment Impact Assessment Authority Haryana Member Secretary

Member Secretary,
SEIAA, Haryana

ANNEXURE -3

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

O.A. 752/2023

IN THE MATTER OF:
NARENDER KUMAR ... APPLICANT

VERSUS

UNION OF INDIA & ORS. ... RESPONDENTS

AFFIDAVIT OF TECHNICAL EXPERT

I, Dr. Virat Arora, Son of Chakra Dhari Arora, aged 39 years, residing at Loharon Ki Gali, Opp. Panna Niwas, Jodhpur – 342001, do hereby solemnly affirm and state as under:

1. That I am a Geospatial Professional and am a qualified expert in the fields of Remote Sensing and GIS.
2. That the Respondent No. 10, M/s Tirupati Roadways Pvt. Ltd. had requested me to examine the HARSAC Reports and accompanying documents and to give my expert opinion on the matter. Accordingly, I have examined the following documents:
   - HARSAC Reports dated 06.06.2022 and August 2025,
   - District Survey Report (DSR),
   - Modified Mining Plan dated 07.08.2018,
   - Survey of India (SoI) G.T. Sheets for the concerned area,
   - Sustainable Sand Mining Management Guidelines (2016) and EMGSM 2020,
   - DILRMP (2021–2026) Guidelines and SoI GPS standards.

NOTARY MANOJ CHOUDHARY Advocate JODHPUR Regd. No. 14036 EXPIRY DATE 02/04/2028 GOVT. OF INDIA

V. Arora,

ATTESTED 2/03/26 NOTARY, JODHPUR

3. That my opinion is confined strictly to the technical evaluation of the geospatial integrity, methodological consistency, and error propagation aspects contained in the investigation report submitted by HARSAC in relation to the alleged illegal mining volumes.

4. That my review indicates that the declared bulk density (2.6 g/cm³) and permissible mining depth (3.0 m) are consistent with the approved Mining Plan of 2018 and are not disputed herein. However, the volumetric calculations derived from elevation differencing are subject to substantial uncertainty. The analysis relies on reference surfaces for which independent validation parameters are not documented, integrates datasets with differing vertical accuracy characteristics, and does not provide detailed photogrammetric processing metadata necessary to assess model reliability. Accordingly, the reported excavated volumes represent outputs of interpolated elevation models rather than direct physical measurements. In the absence of quantified error bounds or uncertainty propagation analysis, the precision of the reported volumetric estimates cannot be independently verified.

5. **DERIVATION OF REFERENCE ELEVATIONS (BASELINE SENSITIVITY)**

The report acknowledges that the estimated quantity of extracted material increased following a revision in the adopted reference elevation. The earlier baseline of 356.8 m was derived from a single downstream point, whereas subsequent reference elevations supplied by the Mining and Geology Department vary between 358 m and 376 m.

ATTESTED
02/03/26
NOTARY, JODHPUR

This indicates that the volumetric outcome is highly sensitive to the selection of reference elevation.

- **Reference Level versus True Surface:** Use of a single elevation value or elevation band as a generalized baseline does not reconstruct the actual pre-mining three-dimensional terrain. In fluvial environments exhibiting longitudinal slope and lateral undulations, a uniform reference elevation may not represent the original surface morphology.

- **Volume Sensitivity to Baseline Shift:** In elevation differencing methodology, any upward adjustment in reference elevation proportionally increases computed excavation depth across the affected area. Even modest deviations in adopted baseline height can therefore materially influence the final volumetric estimate.

  In the absence of a validated historical Digital Terrain Model representing the true pre-mining surface, the derived excavation volume is inherently dependent on the assumed reference elevation.

6. **SPATIAL OMISSIONS: ABSENCE OF THE 2022 DGPS ELEVATION MAP**

While the report bases its final quantitative conclusions on the 2022 DGPS survey, the corresponding DGPS-derived elevation/contour map or Digital Terrain Model is not included in the documentation provided.

- Without access to the generated surface model, independent assessment of terrain topology, interpolation methodology, edge behaviour, and potential surface artifacts cannot be undertaken.

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NOTARY, JODHPUR

- In geospatial volumetric analysis, transparency of the underlying surface model used in final computation is essential for reproducibility and technical validation. In the absence of such documentation, the "post-mining" elevation variable incorporated into the volume calculation cannot be independently evaluated.

7. DGPS SURVEY: POINT DENSITY AND INTERPOLATION CONSIDERATIONS

The report refers to a vertical correction of -1.14 m applied to the DGPS dataset, indicating alignment to a common vertical reference. While such correction addresses datum consistency, overall surface reliability depends not only on instrument precision but also on spatial sampling density and distribution.

- **Point Density Consideration:** Although DGPS instruments are capable of centimeter-level point precision under appropriate conditions, the accuracy of a derived Digital Terrain Model (DTM) is influenced by the spacing and spatial distribution of survey points. Where point density is sparse or uneven, the terrain surface between measured locations is reconstructed through interpolation rather than direct measurement.

- **Terrain Representation and Interpolation Effects:** In undulating terrain, inadequate spatial sampling may smooth or attenuate localized depressions and ridges. If point spacing exceeds the characteristic scale of terrain variability, fine-scale elevation changes may not be fully captured in the reconstructed surface. Volumetric computations derived from such an interpolated model may therefore incorporate interpolation-related uncertainty.

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NOTARY, JODHPUR

8. LIMITATIONS IN SATELLITE STEREO DEM–BASED ANALYSIS

Although the report relies primarily on ground surveys for financial determination, satellite stereo-pair DEMs (2019/2023) have been used as corroborative technical evidence. The methodology raises the following technical concerns:

- **Absence of Ground Control and Independent Check Points:** There is no indication that Ground Control Points (GCPs) or Independent Check Points (ICPs) were used to calibrate and validate the satellite-derived DEM. In the absence of such ground control, stereo satellite DEMs may exhibit vertical uncertainties in the order of several metres (commonly reported between approximately 2–5 m LE90 [Linear Error at 90% Confidence], depending on sensor and terrain conditions). Without independent validation, the vertical accuracy of the model remains unverified.

- **Contour Interval Inconsistent with DEM Accuracy:** The report employs 1-metre contour intervals derived from the satellite DEM. Accepted cartographic practice requires that contour intervals be commensurate with the vertical accuracy of the underlying dataset, typically selected as a multiple (often two to three times) of the vertical error to prevent amplification of noise as terrain signal.

- If the DEM vertical uncertainty is on the order of approximately 3 m LE90, use of 1-metre contour slicing may introduce apparent micro-variations that fall within the noise envelope of the dataset, potentially affecting derived volume computations.

ATTESTED 02/03/26

9. DATA SMOOTHING AND VISUAL VERIFICATION LIMITATIONS

- **Potential Over-Smoothing of 2023 DTM:** Visual comparison indicates reduced micro-topographic variability in the 2023 Digital Terrain Model relative to earlier datasets, suggesting application of smoothing or filtering procedures. While such processing may reduce noise, excessive smoothing can suppress genuine terrain variations. In difference-of-elevation analyses, unequal smoothing between temporal surfaces may influence derived volumetric computations by attenuating localized elevation changes.

- **Limited Visual Verifiability of LULC Mapping:** The Land Use/Land Cover (LULC) maps employ fully opaque polygon symbology that obscures the underlying Planet imagery. This restricts independent visual confirmation of whether mapped polygon boundaries correspond accurately to discernible ground features (e.g., mining pits versus natural depressions). For transparent technical review, cartographic presentation should permit simultaneous inspection of classification boundaries and base imagery.

10. TEMPORAL DYNAMICS AND HYDROLOGICAL VARIABILITY

The interval between the baseline dataset (2018) and the subsequent survey (2022) encompasses three full monsoon cycles.

- Riverbeds and associated floodplains are morphodynamically active environments subject to erosion, deposition, channel migration, and hydraulic scour during high-discharge events. The presence of both positive and negative elevation differences within the survey area indicates active sediment redistribution processes over the study period.

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02/03/26
NOTARY, JODHPUR

- The analysis does not appear to distinguish between natural geomorphological change and anthropogenic extraction. In fluvial systems, vertical change over multi-year intervals may result from a combination of hydraulic processes and human intervention. Without isolating these components through appropriate controls or geomorphic assessment, attributing the entirety of observed elevation change to mining activity may introduce uncertainty in volumetric estimation.

11. GEOSPATIAL DATA INCOMPATIBILITY

The analysis integrates datasets acquired through different surveying methodologies, each possessing distinct accuracy characteristics:

1. **Total Station Survey (2018 Plan):** High-precision ground-based measurements with centimetre-level vertical accuracy.

2. **Satellite Stereo DEM (2019/2023):** Photogrammetric elevation model derived from image correlation, typically exhibiting metre-level vertical uncertainty depending on sensor and terrain conditions.

3. **DGPS Survey (2022):** GNSS-based point observations with accuracy dependent on configuration and processing method.

The vertical accuracy characteristics of these datasets are not equivalent. When elevation differences are computed between datasets with substantially different error magnitudes, the resulting uncertainty is dominated by the dataset with **lower** vertical precision.

If the satellite DEM exhibits vertical uncertainty on the order of several metres, deriving 1-metre elevation slices or fine-scale volumetric differentials may approach or fall within the noise envelope of the dataset. In the absence of

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02/03/26
NOTARY, JODHPUR

formal error propagation analysis, the reliability of such fine-resolution volumetric interpretation remains uncertain.

12. It is my professional opinion that the volumetric figures presented in the report are subject to significant cumulative uncertainty. The reliance on a derived mean reference elevation as baseline, the absence of the 2022 DGPS-derived elevation/contour map for independent review, the adoption of contour intervals in satellite-based analysis that may not be commensurate with the vertical accuracy of the dataset, and the lack of explicit consideration of natural fluvial morphodynamics collectively affect the robustness of the volumetric assessment.

13. In the absence of documented uncertainty bounds or formal error propagation analysis, the reported excavation volumes should be regarded as model-derived estimates rather than independently verifiable physical measurements. Considering that the assessment forms the basis of significant financial liability, the lack of quantified uncertainty further limits the scientific robustness and defensibility of the reported figures.

DEPONENT

VERIFICATION

I solemnly affirm that the contents of this affidavit are true to the best of my professional knowledge and expertise and nothing material has been concealed therefrom.

Verified at Jodhpur on this 02nd day of March 2026.

DEPONENT

NOTARY MANOJ CHOUDHARY Advocate JODHPUR Reg. No. 14098 EXPIRY DATE 02/04/2029 GOVT. OF INDIA

ATTESTED 02/03/26 NOTARY, JODHPUR

ANNEXURE -4

NOTARY
KIRANBEN N. PARMAR
GANDHINAGAR
GUJARAT STATE
REGD.NO.31278/2025
Validity Dt.
08/01/2030
GOVT. OF INDIA

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

O.A. 752/2023

IN THE MATTER OF:
NARENDER KUMAR ... APPLICANT

VERSUS

UNION OF INDIA & ORS. ... RESPONDENTS

AFFIDAVIT OF TECHNICAL EXPERT

I, ***Deepak Gaur***, Son of _***Shri Babu Lal Gaur***, aged _44_ years, residing at ***Kudasan, Gandhinagar (Gujarat)***, do hereby solemnly affirm and state as under:

1. That I am a **qualified Mining Engineer** (Mining Engineer & Mine Planning Expert) with professional experience in mine planning, surveying, volumetric analysis, DGPS surveys, and riverbed sand mining assessment.
2. That the Respondent No. 10, M/s Tirupati Roadways Pvt. Ltd. had requested me to examine the HARSAC Reports and accompanying documents and to give my expert opinion on the matter. Accordingly, I have examined the following documents:
    - HARSAC Reports dated 06.06.2022 and August 2025,
    - District Survey Report (DSR),
    - Modified Mining Plan dated 07.08.2018,
    - Survey of India (Sol) G.T. Sheets for the concerned area,


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GUJARAT STATE
REGD.NO.31273/2025
Validity Dt.
08/01/2030
GOVT. OF INDIA

- Sustainable Sand Mining Management Guidelines (2016) and EMGSM 2020.
- DILRMP (2021–2026) Guidelines and Sol GPS standards.

3. That my opinion is confined strictly to the technical aspects affecting volumetric determination.

I. BULK DENSITY (BD)

4. The District Survey Report (DSR) specifies bulk density of riverbed sand as **2.0 t/m³**.
5. The HARSAC 2025 report computes tonnage using density values up to **2.6 t/m³** HARSAC Report annotated.
6. Tonnage is directly proportional to density. Increasing density from 2.0 to 2.6 results in approximately **30% higher tonnage** for the same volume.

   Technical opinion:

   Where DSR specifies density as 2.0, adoption of a higher density materially increases computed tonnage and must be supported by documented scientific determination.

(Refer Annexure no. 1: **Fig 1.1:** District Survey Report prepared by DMG Department and submitted to SEIAA. Haryana on dt. 30.01.2024: **Fig 1.2:** P-14 of District survey mentions that Bulk density has been considered as 2.0)

II. BASELINE ELEVATION INCONSISTENCY

7. Accurate volumetric computation requires a clearly established and verifiable baseline (original riverbed level).
8. The HARSAC report (2022) adopts a baseline elevation of **356.8 meters**, describing it as the "original riverbed level."
9. This value does not appear in the Modified Mining Plan (2018).
10. As per Survey of India (SoI) G.T. Sheets, the elevation of the riverbanks in the concerned stretch is approximately **360 meters**.
11. A temple located near Lease Boundary Pillar BP-14 is clearly marked on the Survey of India G.T. Sheet, through which the 360 mRL contour passes. This establishes that the surrounding ground elevation in that area is approximately 360 meters above mean sea level.

    During the Joint Inspection conducted by the Committee on 15.05.2024, multiple DGPS readings were recorded. The DGPS observation at the base of the said temple — which is an undisturbed and permanent structure unaffected by mining activity — recorded an elevation of 359.028 mRL.

    Since the temple foundation area has not been subjected to excavation or mining disturbance, it serves as a stable reference point for elevation comparison.

The DGPS-derived elevation (359.028 mRL) being consistent with the 360 mRL contour shown in the Survey of India G.T. Sheet indicates that the ground levels in that location are around 359–360 mRL.

However, the 2018 Surface Plan (Modified Mining Plan) reflects riverbed elevations significantly higher in the same vicinity. This discrepancy suggests that the elevations shown in the 2018 Surface Plan are not consistent with the later DGPS survey data collected during the 2022 HARSAC survey.

Accordingly, the comparative analysis indicates that the 2018 surface and riverbed elevations require reconciliation with DGPS-based measurements before being relied upon for volumetric computation.

12. At the same time, HARSAC's 2018 input dataset (Surface Plan of Modified Mining Plan) reflects riverbed elevations of approximately **368.25 meters**.
13. These figures create a topographic inconsistency:
    - A riverbed cannot logically be several meters higher than its own banks.
    - A baseline lower than documented bank elevations requires clear reconciliation and explanation.
14. In river geomorphology, the riverbed naturally lies at or below adjacent bank elevations and follows a longitudinal gradient.

(**Refer Annexure No. 2: Fig2.1**: Part of SOI Sheet showing Temple location. **Fig2.2**:2017 Surface Plan (Mining Plan), **Fig2.3**:2018 Surface Plan (Modified Mining Plan), **Fig2.4:** DGPS Survey readings taken during Joint inspection on 15.05.2024; **Fig2.5**: DSM image of 2019 provided by HARSAC showing elevation range contradicting with 2018 Surface Plan approved by DMG, Haryana. **Fig2.6:** 3D representation of various survey data; **Fig2.7:** 3D representation of various surfaces in one view along with section view)

Technical Opinion:

If baseline elevation values are inconsistent with Survey of India reference data and approved mining plan records, volumetric depth calculations derived from such baseline become technically unreliable. Any artificial elevation reference may result in natural geological depth being interpreted as excavation.

III. BASELINE AND DATUM CONSISTENCY

15. Volumetric assessment requires comparison between two elevation surfaces expressed in a common vertical datum.

16. The HARSAC report relies upon multiple datasets including:

- DGPS survey,
- Satellite-derived DTM,
- Drone survey,
- Mining plan contours

- HARSAC Report annotated

17. The report does not clearly document:

- A unified vertical datum across datasets.
- Correlation of benchmarks between survey periods.
- Mathematical reconciliation between 2018 mining plan elevations and later DGPS/DTM elevations.

(Refer Annexure No. 3: Fig 3.1: Calculation of Quantity done by HARSAC 2022 report using 2017 Surface Plan; Fig 3.2: Part of drawing of Fig 17 as per HARSAC's 2022 report which shows the location of 446.01 sq.m. area of pit near pillar no. 12 & 13; Fig 3.3 & 3.4: Pictorial representation of Dimensions of the excavation pits & its section represented by HARSAC in 2022 report. Which shows that practically this pit cannot exist in the sand mining Fig 3.5: Calculation of Quantity done by HARSAC 2022 report using 2018 Surface Plan; which simply subtracted the contour values of 2018 surface with 2022 DGPS reading, resulting increasing depth of pit from 14.5m to 17.7m (highlighted in Sr. 15 of Table 2)

(Refer Annexure No. 4: Fig 4.1: Comparison of DTM 2019 & 2023 provided by HARSAC in 2025 report showing depth of mining in the lease area, which contradicts the calculation shown in Table 1 & Table

2). **Fig 4.2:** The Cut Depth of mining shown in the 3D Volumetric analysis provided in HARSAC in 2025 Report which reflects cut depth of mining is between 0 to 5m in the river bed area.

Technical Opinion:

Without demonstrable datum harmonisation and benchmark correlation, calculated excavation depth represents model-based elevation difference rather than verified measurement below original ground level.

IV. DGPS PRIMARY CONTROL AND 72-HOUR STANDARD

18. The DILRMP (2021–2026) Guidelines provide that:

> "The primary control points of the Survey of India (SoI), provided by static GPS observation (72 hours) with dual frequency GPS receivers, should be used… All secondary and tertiary control points should be connected to the primary control points of the SoI."

19. Survey of India GPS standards classify:

- Phase I (Primary Control): 72-hour static observation.
- Phase II/III: Secondary control tied to primary network.

20. This ensures alignment with the National Spatial Reference Frame and minimises geodetic error.

21. The HARSAC report does not document:

- Linkage to an established SoI Primary Control Point,
- Duration of base station occupation.
- Published vertical accuracy statistics (e.g., RMSE).

Technical Opinion:

Where DGPS elevation is used for volumetric liability determination, documentation of geodetic control and vertical accuracy is essential. In absence of such documentation, precision of elevation-derived volume cannot be independently verified.

(Refer Annexure No. 5: Fig 5.1 & 5.2: Guideline of DILRMP (2021-26) from GoI. Ministry of Rural Development Department of Land Resources.)

V. VERTICAL ACCURACY SENSITIVITY

22. As per HARSAC findings, mined area is approximately **30.84 hectares**

30.84 hectares=308,400 m^2

23. If a systematic vertical variation of 1 meter exists across this area:

$308,400 \times 1 = 308,400\ m^3$

At **density 2.6:**

$308,400 \times 2.6 = 801,840$ MT

24. Thus, even **1 meter elevation variation** changes computed tonnage by approximately **8 lakh MT**.

Technical Opinion:

Given the spatial extent involved, small vertical inconsistencies can materially affect computed extraction quantity. Therefore, survey accuracy and datum consistency must be demonstrably established before treating volumetric figures as precise.

VI. STANDARD ENGINEERING METHOD FOR RIVERBED VOLUME

25. For riverbed sand mining, the recognized engineering method is the **Sectional (Cross-Section) Method**, which:

- Uses transverse profiles.
- Computes area difference.
- Applies trapezoidal or prismoidal calculation.
- Allows transparent verification.

26. DEM/contour-based surface differencing is sensitive to baseline selection and datum consistency.

27. Where significant financial liability is involved, sectional verification enhances reliability.

VII. CONSOLIDATED TECHNICAL OPINION

28. In my professional opinion:

a) Bulk density assumption materially affects tonnage.

b) Baseline elevation values require reconciliation with Survey of India reference levels.

c) Datum harmonisation across datasets has not been clearly demonstrated.

d) DGPS elevation precision depends on documented primary control linkage.

e) Volumetric outcomes are highly sensitive to vertical variation over large areas.

29. Accordingly, while the reports may indicate mining activity, the precise quantum of alleged excess extraction should be supported by:

- Documented density determination consistent with DSR.
- Reconciled and verified baseline elevation.
- Demonstrated geodetic control and survey accuracy.
- Standardized volumetric validation.

DEPONENT

VERIFICATION

I solemnly affirm that the contents of this affidavit are true to the best of my professional knowledge and expertise and nothing material has been concealed therefrom.

Verified at Gandhinagar on this 2nd day of march 2026.

DEPONENT

RG. Sr. No. 679
Book No. 1
Page No. 101
Date: - 2 MAR 2026

KIRANBEN N. PARMAR
NOTARY
GOVT. OF INDIA

SOLEMNLY AFFIRMED
BEFORE ME

KIRANBEN N. PARMAR
NOTARY
GOVT. OF INDIA

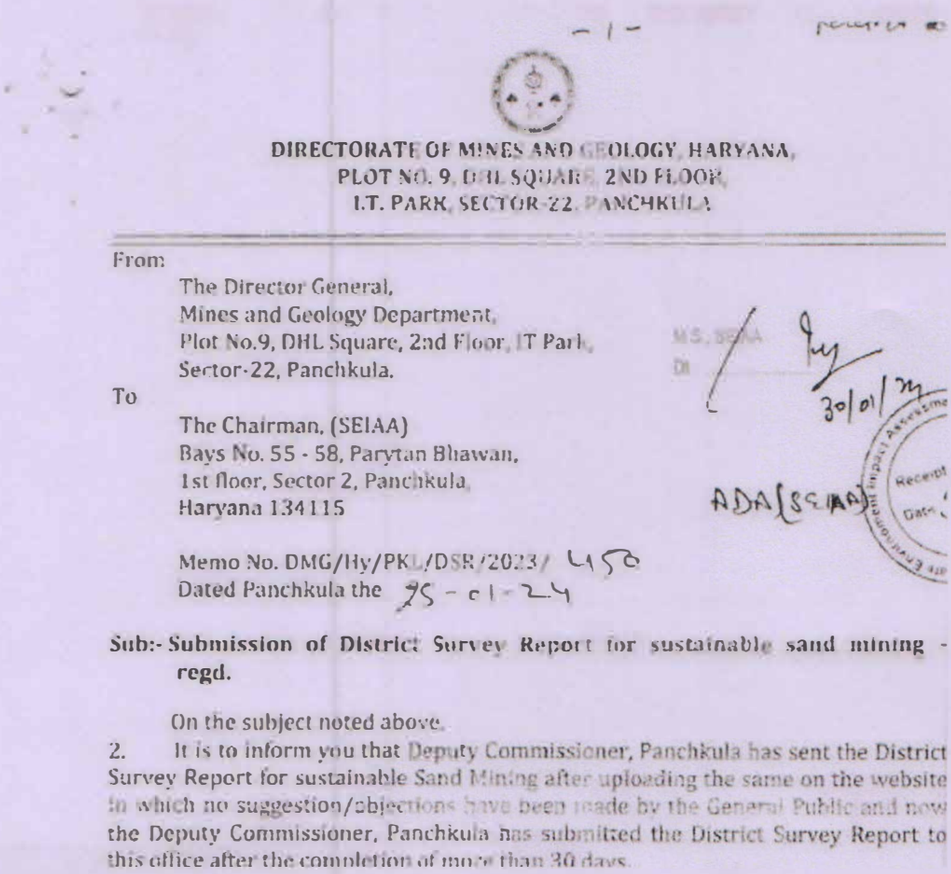
NOTARY KIRANBEN K. PARMAR GOVT. OF INDIA REGD.NO:31276/2025 Validity Dt. 08/01/2030

LIST of ANNEXURES

Sr. No.	Annexure No.	Particulars of Document
1	Annexure – 1 (Fig1.1 & Fig1.2)	**Fig 1.1:** District Survey Report prepared by DMG, Haryana and submitted to SEIAA, Haryana on dt. 30.01.2024; **Fig 1.2:** P-14 of District survey Report mentions that Bulk density has been considered as 2.0
2	Annexure – 2 (Fig 2.1)	Extract of Survey of India G.T. Sheet showing Temple near BP-14 and 360 mRL contour
3	Annexure – 2 (Fig 2.2)	2017 Surface Plan (Mining Plan)
4	Annexure – 2 (Fig 2.3)	2018 Surface Plan (Modified Mining Plan)
5	Annexure – 2 (Fig 2.4)	DGPS Survey Readings recorded during Joint Inspection dated 15.05.2024
6	Annexure – 2 (Fig 2.5)	DSM Image of 2019 (HARSAC) showing elevation range
7	Annexure – 2 (Fig 2.6)	3D Representation of various survey datasets
8	Annexure – 2 (Fig 2.7)	Composite 3D Surface Representation with sectional view

Sr. No.	Annexure No.	Particulars of Document
9	Annexure – 3 (Fig 3.1)	HARSAC 2022 Quantity Calculation using 2017 Surface Plan
10	Annexure – 3 (Fig 3.2)	Extract of Fig 17 (HARSAC 2022) showing 446.01 sq.m pit near Pillar No. 12 & 13
11	Annexure – 3 (Fig 3.3)	Pictorial Representation of Excavation Pit Dimensions (HARSAC 2022)
12	Annexure – 3 (Fig 3.4)	Sectional Representation of Excavation Pit (HARSAC 2022)
13	Annexure – 3 (Fig 3.5)	HARSAC 2022 Quantity Calculation using 2018 Surface Plan reflecting increased pit depth
14	Annexure – 4 (Fig 4.1)	Comparison of DTM 2019 & 2023 (HARSAC 2025 Report)
15	Annexure – 4 (Fig 4.2)	3D Volumetric Analysis (HARSAC 2025 Report) showing cut depth 0–5m
16	Annexure – 5 (Fig 5.1)	Extract of DILRMP Guidelines (2021–2026), by Ministry of Rural Development, GoI
17	Annexure – 5 (Fig 5.2)	Survey of India GPS Standards relating to 72-Hour Primary Control for achieving the high level of accuracy

Annexure 1: Bulk Density related:



DIRECTORATE OF MINES AND GEOLOGY, HARYANA,
PLOT NO. 9, DHL SQUARE, 2ND FLOOR,
I.T. PARK, SECTOR-22, PANCHKULA

From:
The Director General,
Mines and Geology Department,
Plot No.9, DHL Square, 2nd Floor, IT Park,
Sector-22, Panchkula.

To
The Chairman, (SEIAA)
Bays No. 55 - 58, Parytan Bhawan,
1st floor, Sector 2, Panchkula,
Haryana 134115

Memo No. DMG/Hy/PKL/DSR/2023/ 4150
Dated Panchkula the 25-01-24

30/01/24

ADA(SEIAA)

Sub:- Submission of District Survey Report for sustainable sand mining - regd.

On the subject noted above.

2. It is to inform you that Deputy Commissioner, Panchkula has sent the District Survey Report for sustainable Sand Mining after uploading the same on the website in which no suggestion/objections have been made by the General Public and now the Deputy Commissioner, Panchkula has submitted the District Survey Report to this office after the completion of more than 30 days.

Fig 1.1: District Survey Report prepared by DMG Department and submitted to SEIAA, Haryana on dt. 30.01.2024

11. Annual Capacity of Areas selected for mining

The mineral reserves for river bed areas are calculated on the basis of maximum depth of 3 meters. The area multiplied with depth gives volume and volume multiplied with bulk density gives the quantity in M.T. In case of river bed area per hectare area maximum availability of mineral for actual mining is 60,000 MT. The mineral excavated from river gets replenished after every year, therefore, the same quantity remains available for mining again and again.

In case of areas outside river bed the maximum depth of 9 meters from ground level is considered for calculation of capacity of a mine. The area multiplied with 09 gives the volume and volume multiplied with bulk density gives quantity of total mineral available in M.T. However, on an average half meter to 1-meter layer is of ordinary earth, so actual mineral can be excavated up to maximum depth of about 08 meters per hectares area outside river bed in general provides 1,60,000 M.T. of mineral.

12. Basis of area selection for mining.

Fig 1.2: P-14 of District Survey Report mentions that Bulk density has been considered as 2.0.

Annexure 2:

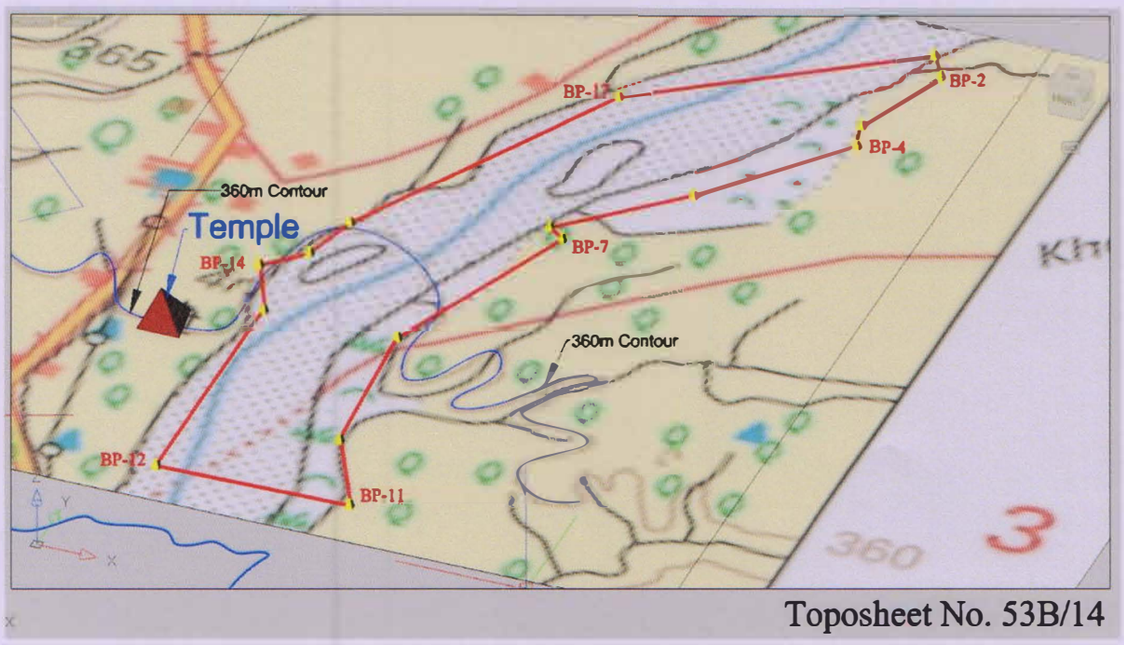


Fig 2.1: Image Showing the Location and the Elevation marked in the Toposheet No. 53B/14 near temple (360m contour line is passing through the temple)

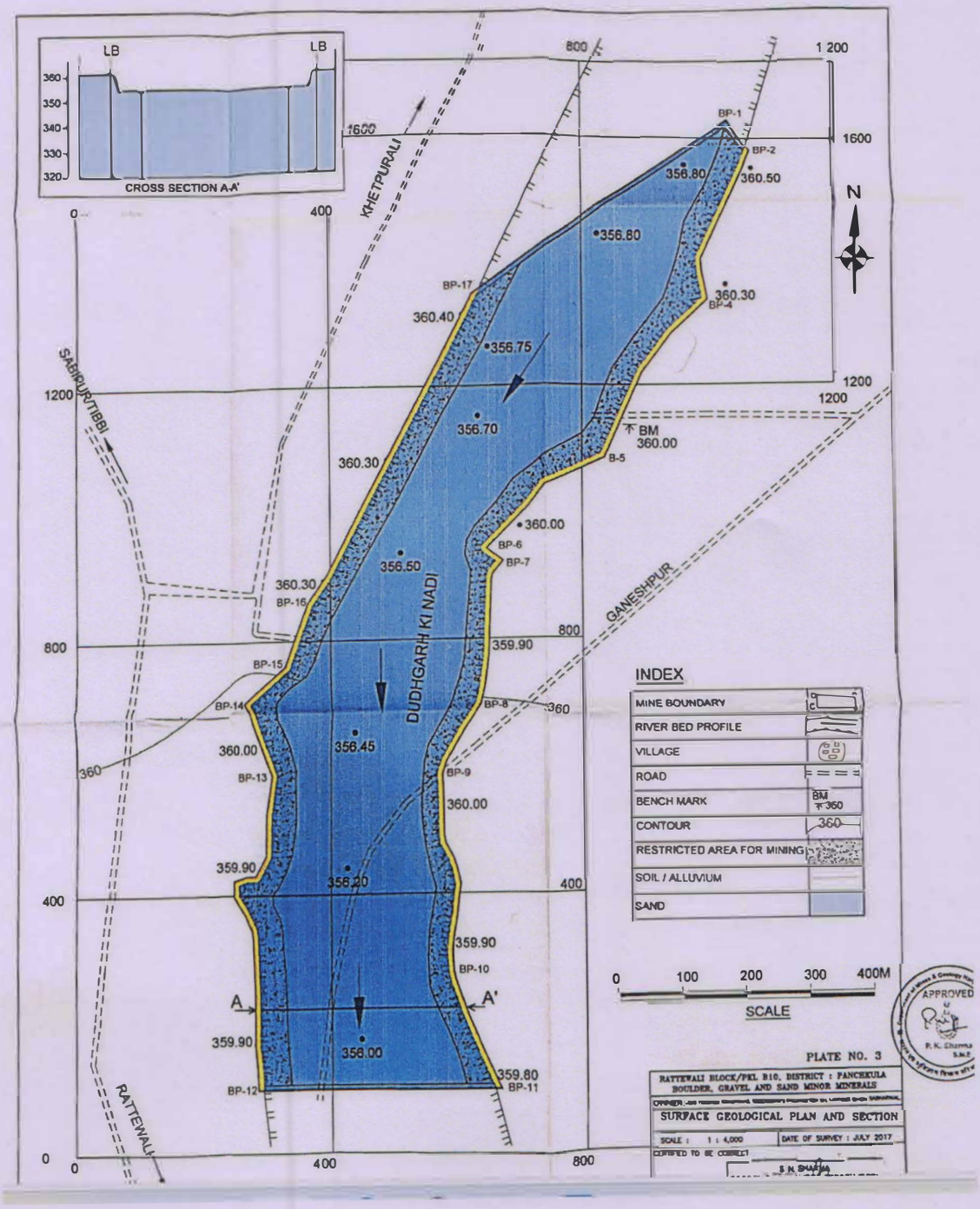


Fig 2.2: Image showing the Surface Plan of the Old Mining Plan (Surveyed in July 2017)

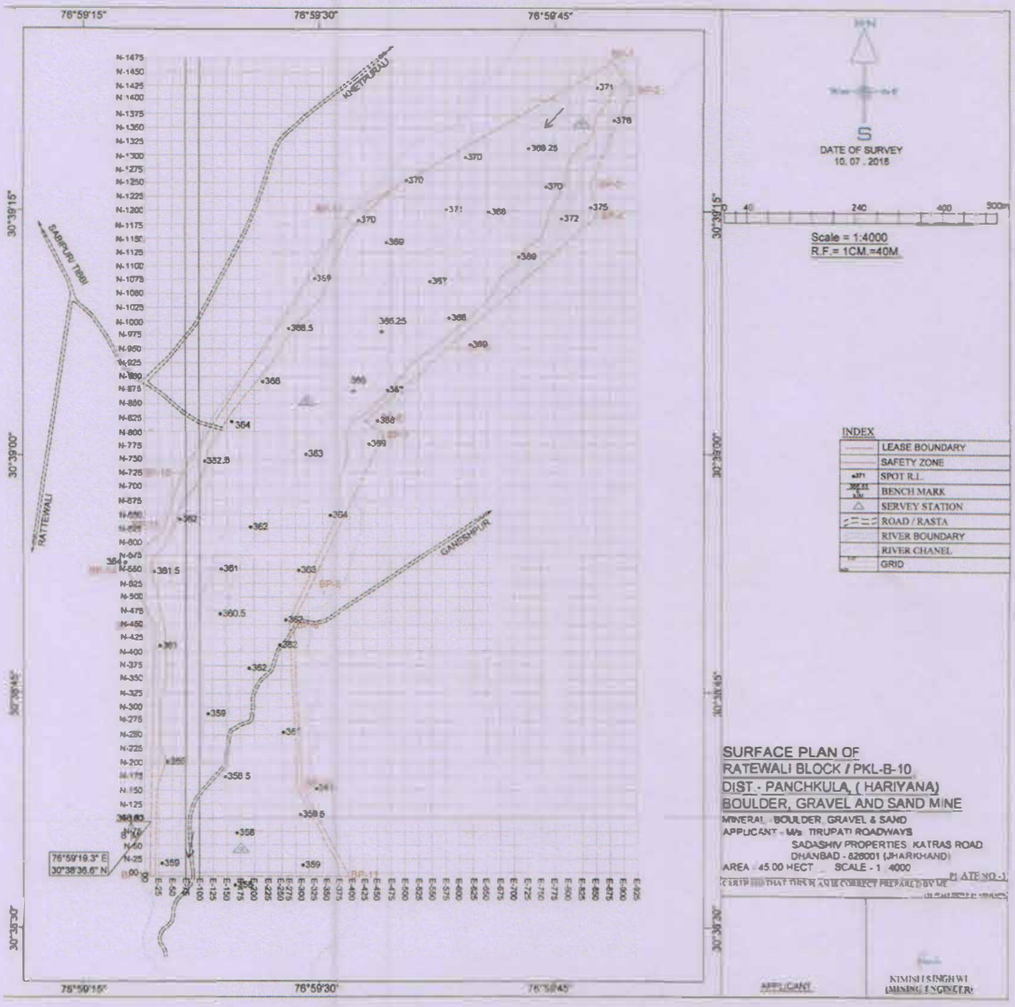


Fig 2.3: Image showing the Surface Plan of the Modified Mining Plan (Surveyed on 10.07.2018)

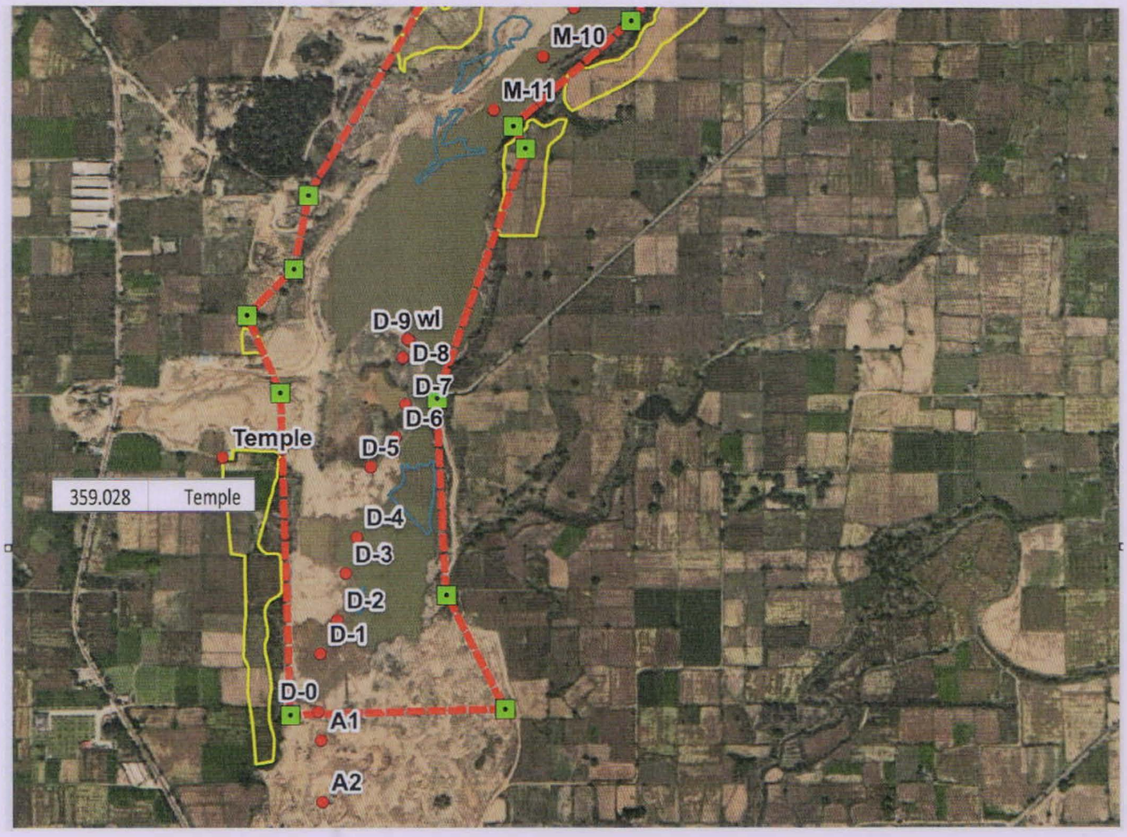


Fig 2.4: Image showing the DGPS readings taken during joint inspection by committee on satellite map (Surveyed on 15.5.2024)

3D Volumetric Analysis

Annexure 12

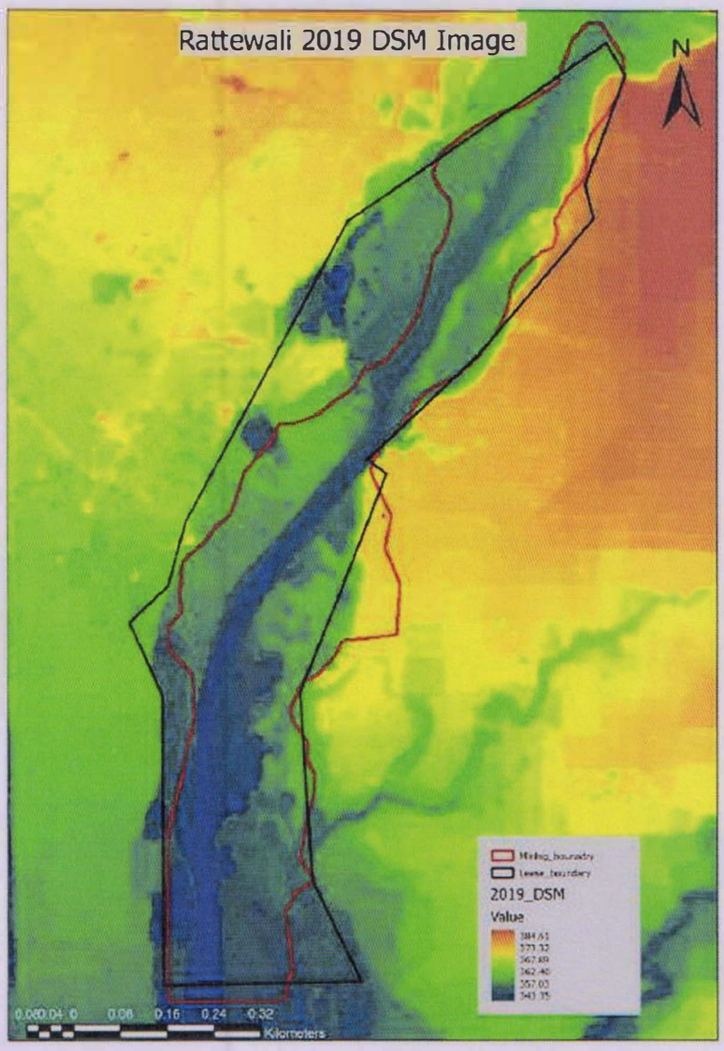


Figure F10 : DSM 2019 indicating Elevation Variation of Surface

Fig 2.5 : The image showing the Annexure 12 (Figure F10) of the HARSAC's 2025 report which shows the elevation data in the mining boundary based on the DSM generated from 2019 satellite data, which clearly shows the middle of river bed is ranging from the green to blue zone which represents the elevation range is between 357.03 m.s.l. (Mean Sea Level) to 343.35 m.s.l as shown in the scale bar. Which proves that the elevation data given in 2018 surface plan were not related to the mean sea level as per the G.T. Sheet of Survey of India.

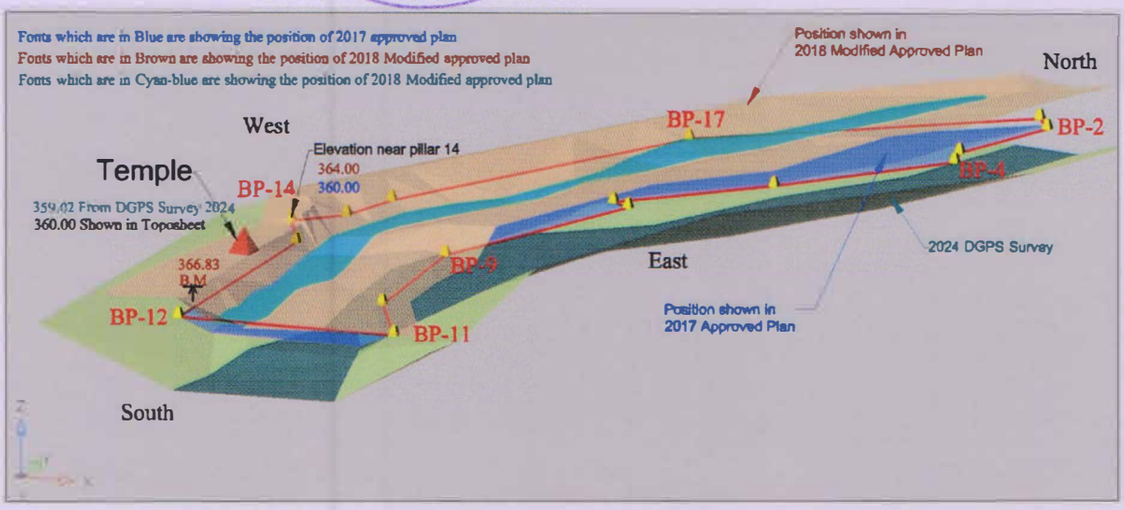


Fig 2.6: Image Showing a 3D representation of the position and elevation as per the DGPS survey done on 15.05.2024 & other surfaces

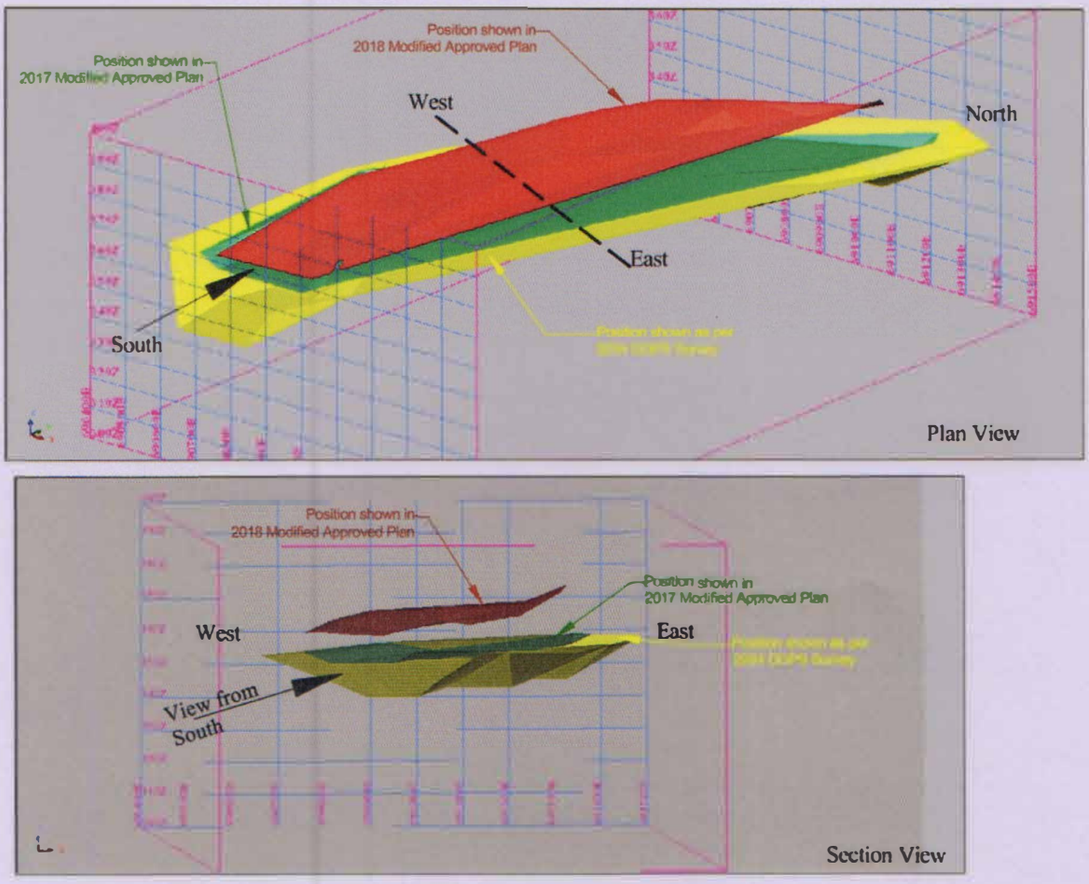


Fig 2.7: Image Showing a 3D representation of the various surfaces taken into account for the volume calculation of the mining. It shows that they are not tied up with the common bench mark which creates the biasness.

Annexure 3:

Table: 1 Surface Volume analysis of material extracted from M/s Tirupati Roadways Minning site village Ratewala

A	B	C	D	E	F
Sr. No	Contour Max	Contour Min	Elevation Difference from Existing Level of River Bed	Area in sqm	Volume in MT (E*D*2), here 2 is bulk density as per mining plan
Volume Calculation of mining done up to permissive Level in Riverbed (356.8m - 353.8m)					
1.	356.80	355.80	1.00	8118.71	16237.41
2.	355.80	354.80	2.00	15603.71	62414.83
3.	354.80	353.80	3.00	13888.79	83332.73
			Total	37611.20	161984.97
Volume Calculation below permissive Level (353.8m - 342.303m)					
4.	353.80	352.80	4.00	18746.91	149975.30
5.	352.80	351.80	5.00	28872.61	288726.07
6.	351.80	350.80	6.00	34576.34	414916.13
7.	350.80	349.80	7.00	27318.01	382452.13
8.	349.80	348.80	8.00	30032.94	480527.07
9.	348.80	347.80	9.00	29398.44	529171.93
10.	347.80	346.80	10.00	27023.68	540473.51
11.	346.80	345.80	11.00	28523.47	627516.39
12.	345.80	344.80	12.00	17561.80	421483.14
13.	344.80	343.80	13.00	17450.90	453723.38
14.	343.80	342.80	14.00	10792.79	302198.15
15.	342.80	342.30	14.50	446.01	12931.51
			Total	270743.90	4604094.71
			Over All total	**308355.10**	**4766079.68**

Fig 3.1: Table showing the Quantity calculations as per the HARSAC'2022 survey. Refer Table 1 in Ratewali Mining site report-Aug 2025 prepared by HARSAC.

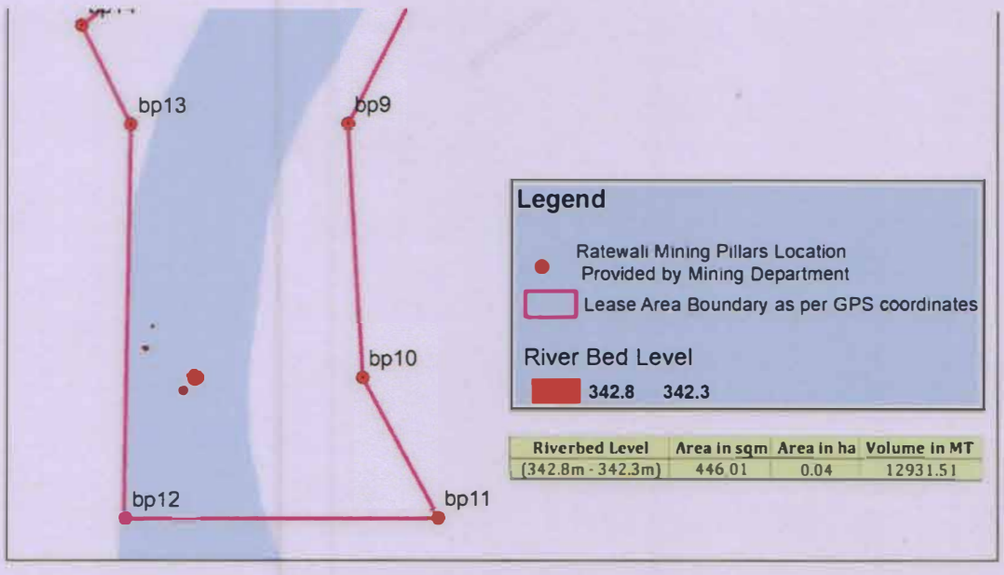


Figure :17 Displaying the area between 342.8-to-342.3-meter contour interval

Fig 3.2: Image is showing the Annexure no. 15 of HARSAC's 2022 report which shows that the area of pit is 446.01 sqm between the River bed level contour 342.8m to 342.3m)

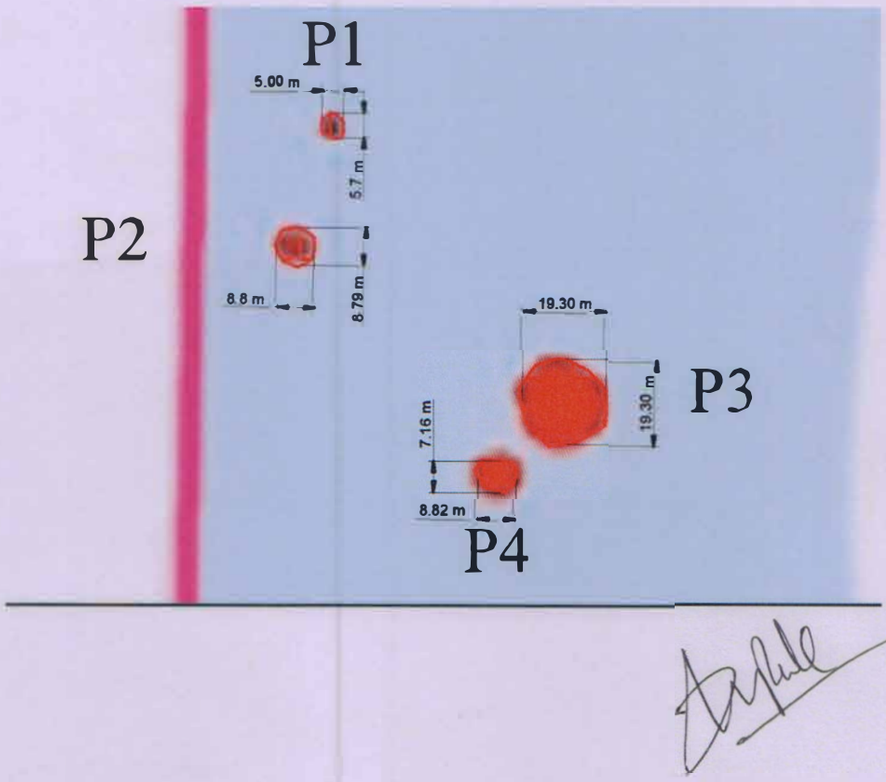


Fig 3.3: The dimensions of the shapes derived from the drawing shown in Annexure 15 of HARSAC's 2022 report.

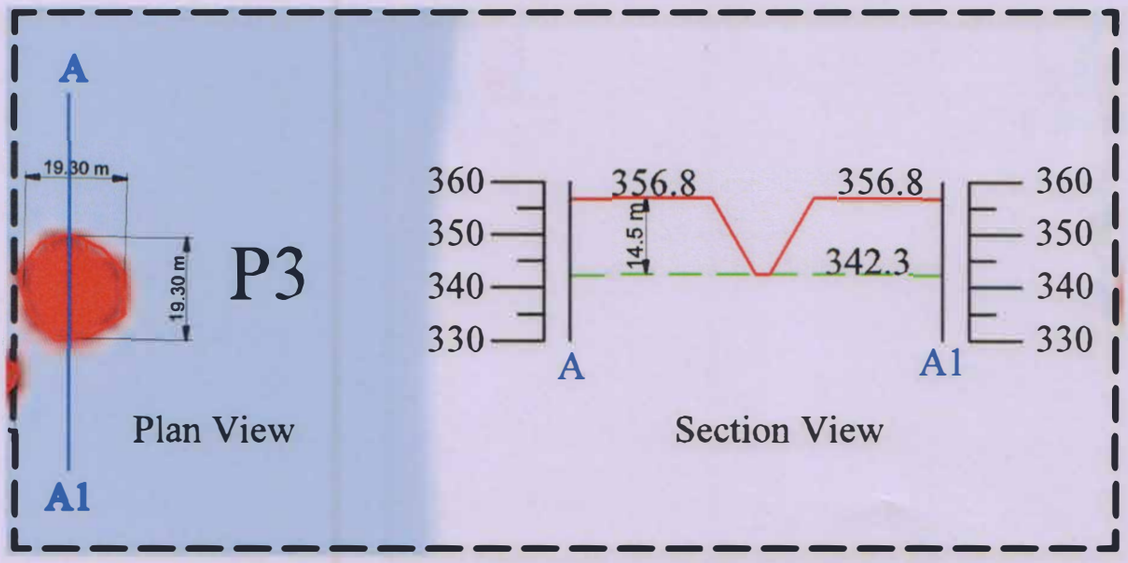


Fig 3.4: A cross section is prepared showing the vertical depth (As per the HARSAC's 2022 Report's calculation table, refer Fig 3.1 in this document). A pit which is 19.3 m wide and depth of 14.5m is practically impossible with the general mining equipment. And further no such deep excavation existed in Satellite images provided by HARSAC' s 2025 report.

requested wide mail dated 04-Feb-2025 (Annexure-4) was not made available either in the revised mining layout plan or through mail.

6. Necessary information's regarding site details, layout plans, etc. were taken from government of India website https://environmentclearance.nic.in/auth/ECGeneral_Report.aspx?pid=12277 for the current analysis.
7. Analysis (based on DGPS survey data and revised mining layout plan) showed that a total of 9068737 MT material has been extract up to May 2022 if the material density is 2. However, as reported in Memo No. DMG/Hy/Cont./Rattewali 8lock/Panchkula B-10/2017/376 dated Panchkula the 30-01-2025 (Annexure-5) the material density is now to be considered as 2.6 hence the total material extract is 11789358 MT (Table 2).
8. The increase in quantity of material extracted was due to change in reference elevation as supplied by Mining and Geology Department varies between 358 m to 376 m, which was earlier used 356.8 m (only single point of downstream location).

Table 2: Volume analysis as per revised mining layout plan up to May 2022

A	B	C	D	E	F	G
Sr. No	Reference Contour (2018)	Contour Min (2022)	Elevation Difference from Existing Level of Riverbed (as in mining plan)	Area in sqm	Volume in MT(E*D*2), here 2 is bulk density as per mining plan	Volume in MT(E*D*2.6), here 2.6 is bulk density as per revised mining plan
1	368.3	355.8	12.5	8118.7	202458.0	263195.5
2	365.9	354.8	11.1	15603.7	345991.9	449789.5
3	366.4	353.8	12.6	13888.8	349098.2	453827.6
4	367.2	352.8	14.4	18746.9	541563.4	704032.4
5	364.6	351.8	12.8	28872.6	739225.8	960993.5
6	365.2	350.8	14.4	34576.3	994956.2	1293443.0
7	364.6	349.8	14.8	27318.0	807743.9	1050067.1
8	363.6	348.8	14.8	30032.9	890347.7	1157452.0
9	362.6	347.8	14.8	29398.4	869400.9	1130221.2
10	362.9	346.8	16.1	27023.7	869955.3	1130941.8
11	362.6	345.8	16.8	28523.5	955640.4	1242332.5
12	361.0	344.8	16.2	17561.8	567650.1	737945.1
13	359.5	343.8	15.7	17450.9	547629.7	711918.6
14	360.0	342.8	17.2	10792.8	371256.4	482633.4
15	360.0	342.3032	17.7	446.0	15819.0	20564.7
	Total				**9068736.8**	**11789357.9**

Fig 3.5: Table showing the Quantity calculations as per the HARSAC'2022 survey & Reference contours given in 2018 Surface Plan of Modified Mining Plan. Refer Table 2 in Ratewali Mining site report-Aug 2025 prepared by HARSAC. The row number 15 is showing the excavation of 17.7m which has got area of just 446 sqm, as shown in the previous schematic diagram, such excavation is not possible with the common mining equipment used in the sand mining.

Annexure 4:

3D Volumetric Analysis Annexure 12

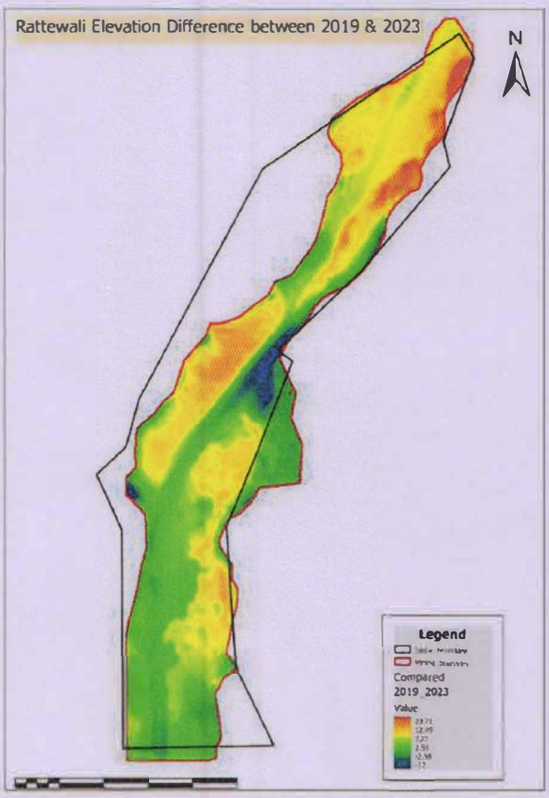


Figure F16: Comparison between DTM of 2019 & 2023 indicating Elevation Variation of Terrain Within Mining Boundary

Fig 4.1 The comparison between DTM of 2019 and 2023 shows that variation in elevation data in the southern part of the lease is less than the 3 m which proves that the calculations made in above tables (Table 1 & Table 2) of the HARSAC's report are hypothetical.

3D Volumetric Analysis

Annexure 12

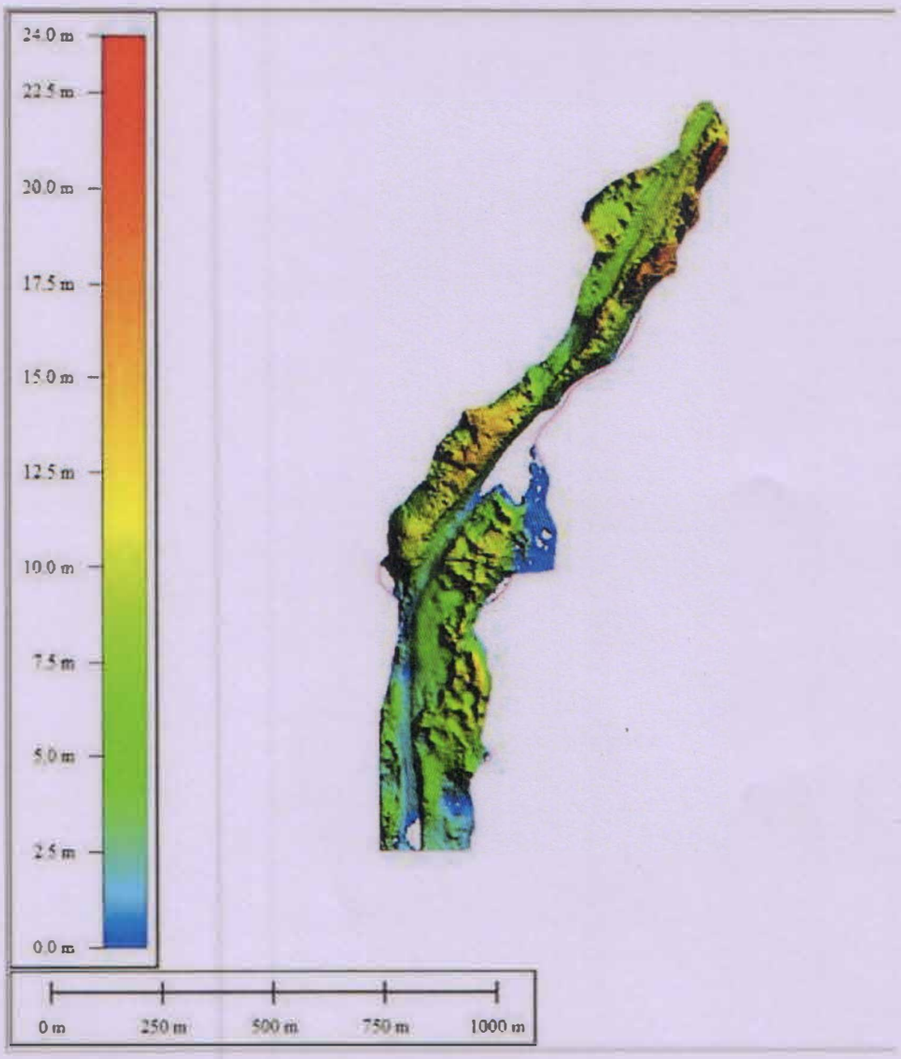


Figure F17 : Showing Cut of DTM of 2019 & 2023 Within Mining Boundary

Fig 4.2: The image showing the Annexure 12 (Figure F17) of the HARSAC's 2025 report which shows the cutting depth in the mining boundary comparison between the 2019 & 2023 data, which clearly shows the middle of river bed is ranging from the green to blue zone which represents the depth range is between 5m to 0m as shown in the scale bar.

Annexure 5

Link for the DILRMP Guideline
https://cdnbbsr.s3waas.gov.in/s3d69116f8b0140cdeb1f99a4d5096ffe4/uploads/2024/04/20240425160100930.pdf

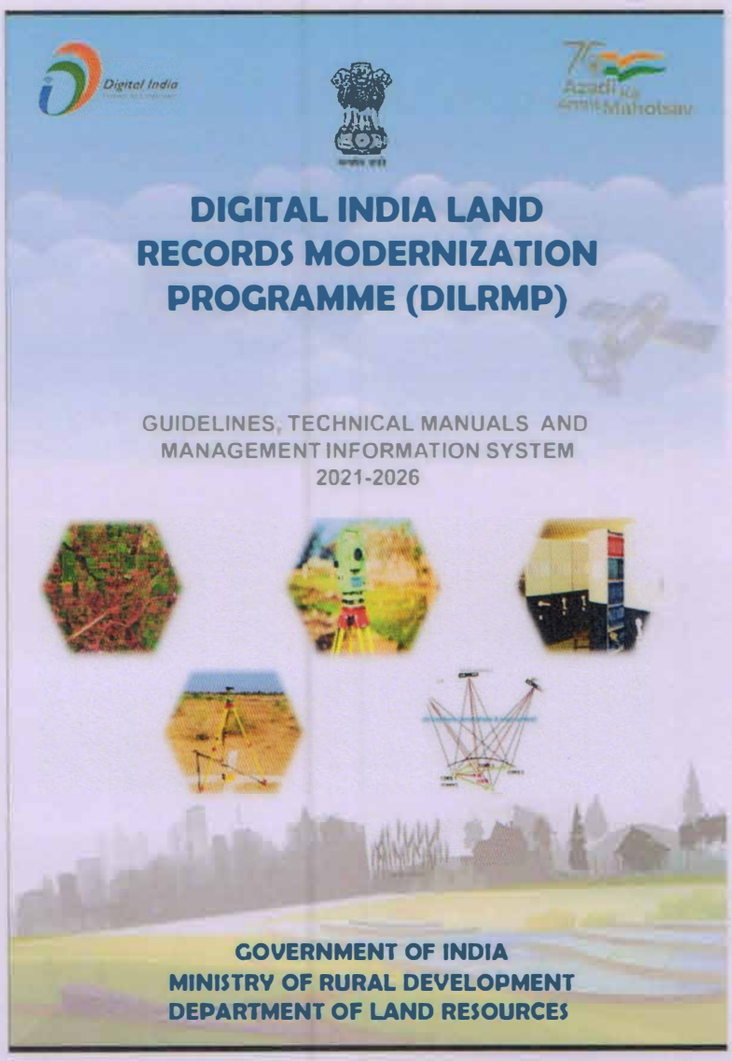


Fig5.1: Cover page of the DILRMP Guidelines for Survey using DGPS and other instruments

(B) Setting up the Ground Control Network

1.0 INTRODUCTION

The Survey of India is undertaking the task of establishing a ground control point library (GCPL) for the entire country. In the first phase, 300 points of GCPs have been established at a spacing of 200 to 300 km apart. 2200 points, at a spacing of 30 to 40 km apart are to be established in the second phase of their project. Survey of India is in the process of establish Continuous Operating Reference Stations (CORS) network for the entire country which would become the National Spatial Reference Frame for provision of Ground Control Network Points. Therefore, extension of Tertiary & Auxiliary establishment of ground control points has to be done by implementing agency only.

2.0 CONTROL POINTS: All the control points should be based on datums given below:

2.1 Horizontal Datum: WGS-84 (i.e., the latest version of the World Geodetic System standard for use in cartography)

2.2 Vertical Datum: MSL, i.e., the Mean Sea Level.

3.0 PRIMARY CONTROL POINTS

3.1 Horizontal

The primary control points of the Survey of India (SoI), provided by static GPS observation (72 hours) with dual frequency GPS receivers, should be used. The primary control points of the SoI have been post-processed with precise ephemeris adjusted with the help of Bernese s/w to the ITRF co-ordinate system. All the secondary and tertiary control points should be connected to the primary control points of the SoI, to ensure connection to the National Framework.

3.2 Vertical

The precision Bench Marks of the SoI should be used as primary vertical control.

4.0 SECONDARY CONTROL POINTS

4.1 Horizontal

The secondary control points of the SoI should be used, wherever available. In areas where the requisite density of secondary control points (16 km) are not available from the SoI, these should be provided.

Fig 5.2: Image showing Page no 165 of the Guidelines of DIRLMP (2021-2026) about the Primary control points for achieving the high level of accuracy.

ANNEXURE -5

Director General, Mines and Geology, Haryana
2nd Floor, DHL Square, Plot No. 09, IT Park, Sector-22, Panchkula

Speed Post/Most Urgent

From

SPIO-cum-Assistant Mining Engineer,
Directorate of Mines & Geology,
Haryana, at Panchkula.

To

Sh. Gurpreet Singh Sabharwal,
House no. 08, Sector 6, Panchkula, Haryana,
Mobile No. 8495077777.

Memo No. DMG/HY/RTI/19/2026/Gurpreet Singh Sabharwal/ 1126
Dated Panchkula, the 29/02/26

Subject : Application under Right To Information Act, 2005.

Reference your RTI application no. 001364/2026 dated 15.01.2026, on the subject cited above.

2. The information sought by you vide your application no. 001364/2026 dated 15.01.2026, under RTI Act, 2005 is being sent to you.

(Note: First appeal, if any against the reply of the SPIO may be made to the First Appellate Authority within 30 days of receipt of reply of SPIO on the address: Dr. Madhavi Gupta, FAA-cum-SME, Room No. 05, Plot No. 9, Second Floor, DHL Square, IT Park Sector-22, Panchkula, Ph: 0172-4602104, E-mail:dmg.mines-hry@nic.in).

Encls: As Above.

(Neeraj Kumar)
SPIO-cum-Assistant Mining Engineer,
Directorate of Mines & Geology,
Haryana, at Panchkula

Subject: -Application under RTI Act, 2005 sought by Shri Gurpreet Singh Sabharwal, House no 08, Sector-6, Panchkula.

Will AME-cum-SPIO refers to his memo No. DMG/HY/RTI/341/2026 dated 22.01.2026 on the subject noted above.

2. Point wise reply to the RTI Application is as:

1. Copy of order passed by DGMG in year 2020 for illegal mining and Termination order (attached).
2. Copy of order passed by DGMG on 15.04.2025(attached).
3. With regard to point 3, as per office record, there is no order passed by DGMG in the year 2021.

Assistant Mining Engineer,
for Director General, Mines and Geology,
Haryana.

U.O. No. DMG/HY/RTI/Gurpreet singh Sabharwal/2026/ 1067 **Dated:** 18-02-2026

To

The AME-cum-SPIO
at Headquarter

18/2/26

Director General, Mines & Geology, Haryana.

ORDER

M/s Numberdar Builders applied for a Mineral Dealer License (MDL) to stock 250,000 MT of sand annually, with a maximum of 50,000 MT at any time at Jainpur, Sonipat, for five years. A Letter of Intent (LoI) was issued on 12.07.2019, requiring a ₹2,00,000 fee, which was paid on 15.07.2019.

2. Whereas, before the MDL was granted, the Mining Officer (MO), Sonipat, seized the sand on 07.08.2019, citing illegal stocking without a license and exceeding the approved quantity. An inspection revealed that 2,39,580 MT of sandwas stocked, whereas, the LOI has been granted for maximum quantity of 2,25,000MT.

3. The department directed Mining Officer, Sonipat vide letter dated 20.09.2019 to submit a report regarding total stocked mineral by M/s Numberdar Builders along with photographs. Mining Officer, vide letter dated 03.10.2019 informed that total quantity of stocked mineral is 2,40,450 MT.

4. The department further directed Mining Officer, Sonipat vide letter dated 14.11.2019 regarding auction of illegally stocked mineral under the committee of concerned Deputy Commissioner.

5. M/s Numberdar Builders filed a case (CWP No. 35899 of 2019)challenging the auction order. The High Court reviewed the case on 29.01.2020, questioning inconsistencies in the MO's reports. A detailed stock reassessment was ordered but not completed timely. High Court disposed of the case on 27.09.2022, allowing an appeal before the Administrative Secretary.

6. The Appellant Authority dismissed the appealvide order dated 15.12.2022as the stock location violated the 5 km distance rule from the Yamuna River amended rule 82(1) of State Rules, 2012. The department was allowed to proceed legally with the seized stock.

7. Smt. Chandro Devi requested a reduced fine and permission to lift the sand. A fresh s tockmeasurement was done by Mining Officer, Sonipat, Sonipat on 24.07.2023 and found 75,425 MT of sand at the site. Further, vide letter dated 10.07.2024, department directed M/s Numberdar Builders to deposit total amountofRs.43,09,225/- (Rs. 42,99,225 as per price ofmineral of 75425MT @ of Rs. 57perMT plus10,000asfine), within 30 days, then they will be allowed to dispose of the mineral.

8. M/s Numberdar Builders deposited above-mentioned price of mineral plus penalty vide GRN No. 0119911031 on dated 08.08.2024 as per State Rules, 2012 and requested to start the e-Rawaana generation of unit.

Rajender Parshad
AME

Director General, Mines & Geology, Haryana.

9. Vide letter dated 20.09.2024, department accepted/considered their request and allowed to dispose of 75,425 MT of sand mineral subject to the condition that (a) the mineral shall be disposed of within a period of six months (i.e. 08.02.2025) from the date of deposition of the amount of penalty (i.e.08.08.2024), (b) the mineral shall be disposed of only through e-Rawaana generated from Department portal for which you will be allowed to generate e- Rawaana. (c) you shall be supposed only to sell the 75425 MT mineral lying at your site and not to purchase any mineral. Further, in case mineral at site is found to be more than 75425 MT assessed by the Team of Departmental Officers, you will be allowed to dispose of the same subject to payment of additional amount at the above rates (Rs.57 per MT).

10. M/s Numberdar Builders vide letter dated 04.09 2024 requested to allow generation of e-rawaana and also extend the time limit to14 months for disposal of sand stocked mineral as the villagers creating hurdles in passing of mineral through village routes or allow only fewer number (approx2-2 vehicles a day) of vehicles during nighttime. Therefore, it is not possible by M/s Numberdar Builders to dispose the mineral in the given time limit.

11. Considering the above facts, and in lieu of natural justice, extension of time period of 08 months from expiry of last 06 months is granted (i.e. 08.02.2025 to 08.08.2025) to dispose of the mineral subject to the condition that (a) the mineral shall be disposed of within a prescribed time period mentioned aboveand no further time will be allowed after this opportunity (b) the mineral shall be disposed of only through e-Rawaana generated from Department portal for which you will be allowed to generate e- Rawaana.

K. Makrand Pandurang, IAS
Director General, Mines & Geology,
Haryana.

Dated Panchkula, the

Rajender Parshad
AME

Director General, Mines & Geology, Haryana.

Endst. No.: DMG/HY/SNP/MDL-357/2019/ 1554 Dated: 15/4/25

A copy is forwarded to the following for information and necessary action:-

1. M/s Numberdar Builders, Jainpur, Sonepat.
2. Assistant Mining Engineer, Sonepat.
3. IT Cell, for upload the same on departmental website.

Assistant Mining Engineer,
for Director General, Mines and Geology,
Haryana.

Rajender Parshad
AME

Gmail

saurabh rajpal <saurebh.rajpal@gmail.com>

NARENDER KUMAR VS UOI AND ORS

saurabh rajpal <saurebh.rajpal@gmail.com> Tue, 3 Mar at 12:29 PM
To: <rkhuranalegal@gmail.com>, <emailtogkb@gmail.com>

Please find attached here with the copy of objections filed on behalf of Respondent No. 10, Tirupati roadways. The service of the matter is done well in advance, so that final hearing can take place on the next date of hearing.
Regards
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NARENDER KUMAR VS UOI AND ORS.pdf