

BEFORE THE NATIONAL GREEN TRIBUNAL  
EASTERN ZONE BENCH, KOLKATA

ORIGINAL APPLICATION NO. 164/2024/EZ

DEBASIS BISWAS

.....APPLICANT(S)

VERSUS

THE STATE OF WEST BENGAL & ORS.

.....RESPONDENT(S)

COMMITTEE REPORT ON AFFIDAVIT FILED BY  
THE WEST BENGAL POLLUTION CONTROL  
BOARD.

INDEX

| SL No | PARTICULARS                             | ANNEXURE | PAGE  |
|-------|---|----------|-------|
| 1.    | Affidavit                               |          | 1-9   |
| 2.    | Copy of inspection report of Committee. | 'R'      | 10-98 |

Filed by

*Sibojyoti Chakrabarti*  
SIBOJYOTI CHAKRABARTI  
ADVOCATE

BEFORE THE NATIONAL GREEN TRIBUNAL  
EASTERN ZONE BENCH, KOLKATA

ORIGINAL APPLICATION NO. 164/2024/EX

DEBASIS BISWAS

.....APPLICANT(S)

VERSUS

THE STATE OF WEST BENGAL & ORS.

.....RESPONDENT(S)

COMMITTEE REPORT ON AFFIDAVIT FILED BY  
THE WEST BENGAL POLLUTION CONTROL  
BOARD.

Most Respectfully Sheweth

I, Sri Subrata Ghosh, son of Shri Biswanath Ghosh, aged about 60  
years, by faith-Hindu, Occupation- Service, residing at  
Narkelbagan, Gorosthan, Chinsurah, District - Hooghly, do  
hereby solemnly declare and say as follows:-

20 DEC 2024

01. That, I am the Officer on Special Duty (OSD), West Bengal Pollution Control Board (hereinafter will be referred to as the 'State Board') and I am well acquainted with the facts and circumstances of the case. I have been duly authorized by the Respondent No. 02, to affirm this Affidavit on its behalf and as such, I am competent to do so.

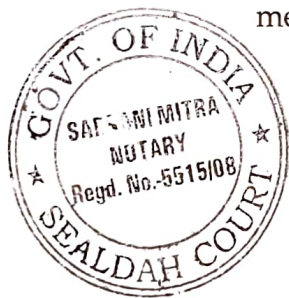
02. That, this affidavit is being affirmed in pursuant to the orders passed by this Hon'ble Tribunal dated 14.08.2024 and 15.10.2024.

03. That, the Hon'ble National Green Tribunal vide order dated 14.08.2024 constituted a committee comprising of the following members: -

- i) Senior Scientist, West Bengal Pollution Control Board;
- ii) Senior Scientist, State Environment Impact Assessment Authority (SEIAA), West Bengal;
- iii) The District Magistrate, Purba Bardhaman or his representative not below the rank of Additional District Magistrate (ADM); and
- iv) Chief Mining Officer or his representative of Senior rank.

That, the said Committee conducted a field visit on 25.09.2024, from 12.30 p.m. to 01.30 p.m.

20 DEC 2024



04. That, the Committee visited the site in question and made the following observations:

(a) During field visit, the Committee observed that the water level in the Damodar river was high and almost touching the bank because of which the Committee Members could not reach the exact mining site as demarcated in the approved mining plan. However, the Committee Members reached to the nearest accessible point from which a clear view of the purported site was available and took stock of the situation.

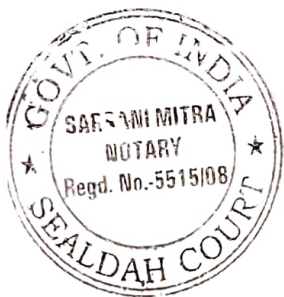
(b) No mining activity was observed at the time of the visit at the project site or in the vicinity of the project site.

(c) No machinery for extraction of sand was found at the project site at the time of the visit. No vehicles meant for transportation of sand were also observed.

(d) No Display Board mentioning the name of the sand block or the project proponent i.e. Mr. Himanshu Santra was found visible at the site.

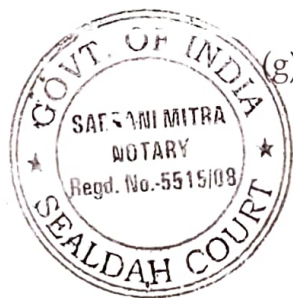
(e) The District Survey Report (DSR) of Purba Bardhaman was approved on 08.09.2022 and was revised on 01.02.2024. The Mine area as mentioned in the approved mining plan is

2.0 DEC 2024



falling within the potential zone PBBD\_BD\_DA\_15A as per District Survey Report (DSR) of Purba Bardhaman district approved by SEIAA on 01.02.2024.

(f) The petitioner has alleged in the petition that the proposed project will be requiring 32 KLD of water which would create adverse impact in the locality. However, it was observed from the application of Terms of Reference (ToR) made by Mr. Himanshu Santra in the PARIVESH Portal that the water demand for proposed project is only 6.81 KLD.



(g) It was observed that the approach road from the nearest habitation to the river embankment was made of concrete and had suffered normal wear and tear but was observed to be in a reasonably road worthy condition. However, there was only a narrow earthen road from the embankment down to the proposed site and no motorable road was found existing on the day of visit. So the allegation of the petitioner against Mr. Himanshu Santra regarding causing damage to the roads was found to be without substance.

(h) The estimated distance obtained from Google Earth Image of the project site from nearest Railway Station, National

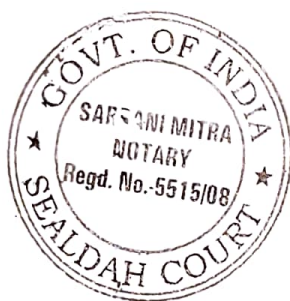
2.0 DEC 2024

Highway are 4.1 KM and 3.0 KM respectively. There is no State Highway near the project site. However, it is noted that the distances of the project site from the nearest Railway Station, National Highway and State Highway have no adverse bearing on the approval of Mining Plan of Mr. Himanshu Santra.

05. That, the Committee members made the following remarks:

- (i) During the field visit no mining activity was observed and the proposed mining area was inundated with river water as the field visit was conducted in the peak of the monsoon season.

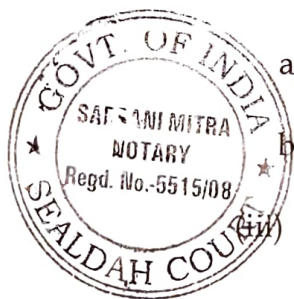
Moreover, based on an earlier complaint against illegal sand mining by Mr. Himanshu Santra, the district administration had conducted a joint inspection by a 3-Man enquiry Committee comprising (i) Block Development Officer, Bardhaman-II Development Block (ii) Block Land and Land Reforms Officer, Bardhaman-II Block and (iii) Officer-in-Charge, Shaktigrah Police Station on 30/05/2024. As per the said report of inspection vide No. 734/BL&LRO/BDN-II/24



20 DEC 2024

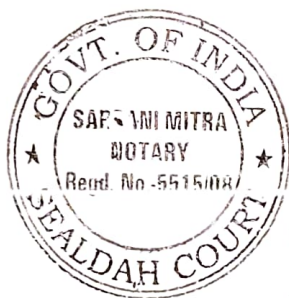
dated 11/06/2024, no evidence of any sand extraction by Mr. Himanshu Santra was noticed at the site even at that point of time.

(ii) The Proposed mining project has not obtained Environmental Clearance (EC) yet. The project proponent has only obtained ToR for doing Environmental Impact Assessment (EIA). The ToR granted to the project proponent include the issue of re-estimation and annual production level based on the replenishment rates reported in the approved DSR of Purba Bardhaman as well as impact on biodiversity.



(iii) Mr. Himanshu Santra, the Project Proponent has to prepare draft EIA report based on which Public Hearing would be conducted subsequently by West Bengal Pollution Control Board (WBPCB). The project proponent will have to address the issues raised in the said public hearing and prepare the final EIA report which will then be considered during appraisal for Environmental Clearance (EC) by SEIAA.

(iv) It is further observed that only after Mr. Himanshu Santra, the project proponent obtains Environmental Clearance (EC) from SEIAA, Consent To Establish (CTE), Consent To Operate (CTO) from WBPCB, will the Lease Deed be executed between the District Magistrate and Mr. Himanshu Santra. Pursuant to the execution and registration of the sand lease deed the project proponent Mr. Himanshu Santra will be handed possession of the Kalinagar sand block (Auction ID 2017\_DMBUW\_676) and thereafter be permitted to excavate sand from the Kalinagar Sand Block (Auction ID 2017\_DMBUW\_676).



Copy of the inspection report of the Committee is annexed herewith and marked with letter "R".

06. It is therefore respectfully prayed that Hon'ble Tribunal may pass such order/orders as it deems fit and proper in the interest of justice.

Identified by me  
Sibajyoti Chakrabarti  
Advocate  
for WBPCB

*Sukumar Chakrabarti*  
DEPONENT

9

## VERIFICATION

I Sri Subrata Ghosh, son of Sri Biswanath Ghosh, aged about 60 years, by Religion - Hindu, by Occupation- Service, residing at Narkelbagan, Gorosthan, Chinsurah, District Hooghly, do hereby solemnly declare and say as follows:-

1. That I am the Officer on Special Duty (OSD) West Bengal Pollution Control Board and I am well acquainted with the facts and circumstances of the instant Original Application.
2. That the statements made in paragraph 1 of this affidavit is true to my knowledge and belief.
3. That the statements made in paragraphs 2 to 5 of this affidavit are my information derived from the records available in the office of the State Board which I verily believe to be true and the rest are my respectful submission before this Hon'ble Tribunal.

*Srijyoti Chakrabarti*  
Identified and corrected by me  
Advocate  
WBPCB

*Subrata Ghosh*  
DEPONENT

Solemnly Affirmed &  
Declared Before Me  
On Identification by \_\_\_\_\_

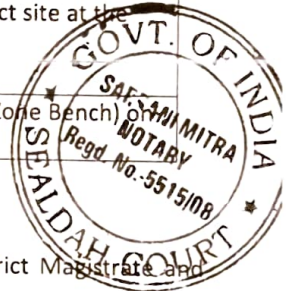
*h*  
BARBANTI MITRA  
NOTARY  
Regd. No.-5515/09

2.0 DEC 2024



**Report of the Committee Constituted by Hon'ble National Green Tribunal (Eastern Zone Bench), Kolkata by the order passed on 14.08.2024 in connection to OA No 164/2024/EZ**

|                               |  |
|-------------------------------|--|
| Name & Address of the unit:   | Sand mining site at plot no. 181(P), 205(P), Mouza- Kalinagar, JL No.160, P.S.-Saktigarh, District-Purba Bardhaman over an area of 6.04 acres (2.44 Ha) on the river bed of Damodar with auction Id: 2017_DMBUW_676.   |
| Name of the committee members | <ol style="list-style-type: none"> <li>1. Bishwa Ranjan Mukherjee, WBCS (Exe.), Additional District Magistrate and District Land and Land Reforms Officer, Purba Bardhaman.</li> <li>2. Chiranjib Dawn, Assistant Environmental Engineer, Durgapur Regional Office, West Bengal Pollution Control Board (Representative of WBPCB)</li> <li>3. Dr. Rajarshi Chakraborty, Environment Officer, Environment Department (representative of SEIAA, West Bengal)</li> <li>4. Subhadeep Kumar Ghosh, Mining Officer, Asansol (Representative of Chief Mining Officer, Asansol, WB)</li> </ol> <p>(Copies of nomination letter are attached as <b>Annexure-1, Annexure-2 and Annexure-3</b>)</p> |
| Date of site visit:           | 25/09/2024   |
| Time of Visit:                | 12:30 p.m to 01:30 p.m.  |
| Person met during inspection: | None from Project Proponent side was present at the project site at the time of the field inspection.  |
| Nature of the area            | River bed sand block   |
| Reference of inspection       | Order passed by Hon'ble National Green Tribunal (Eastern Zone Bench) on 14/08/2024 in connection to OA No.164/2024/EZ  |



**About the Unit:**

- Letter of Intent was issued to Mr. Himanshu Santra by the Office of the Additional District Magistrate and District Land & Land Reforms Officer, Purba Bardhaman on 26/11/2018 (**Annexure-4**)
- The Mining plan of the proposed project was approved by the Chief Mining Officer, Asansol on 27/10/2021 which is attached as **Annexure-5**.
- No Environmental Clearance (EC) by the District Environment Impact Assessment Authority (DEIAA) or State Environmental Impact Assessment Authority (SEIAA) has been issued to Mr. Himanshu Santra for sand mining at plot no: 181(P), 205(P) of Mouza: Kalinagar as on date of field visit. Consequently, neither Consent to Establish (CTE) nor Consent to Operate (CTO) has been issued by West Bengal Pollution Control Board.
- Mr. Himanshu Santra had applied for Terms of Reference (ToR) as per EIA Notification in the PARIVESH Portal of MoEF&CC vide proposal No.SIA/WB/MIN/476968/2024 dated 07/06/2024 and subsequently the said Terms of Reference (ToR) have been granted by the State Environment Impact Assessment Authority (SEIAA) on 23/07/2024 as per due process. Copy of the Terms of Reference (ToR) is attached as **Annexure-6**.
- As Environmental Clearance (EC) has not yet been granted to Mr Himanshu Santra, therefore no valid lease agreement has been executed between Mr. Himanshu Santra and District Magistrate, Purba Bardhaman till date and the question of permission for actual excavation of sand by Mr Himanshu Santra does not arise.
- The geographical boundary points of the proposed project site as per approved mine plan are as follows:

| Sl. No. | Boundary Point | Latitude      | Longitude     |
|---------|----------------|---------------|---------------|
| 1       | A              | 23°10'17.06"N | 87°57'11.56"E |
| 2       | B              | 23°10'17.05"N | 87°57'16.93"E |
| 3       | C              | 23°10'21.84"N | 87°57'18.06"E |
| 4       | D              | 23°10'21.74"N | 87°57'11.91"E |

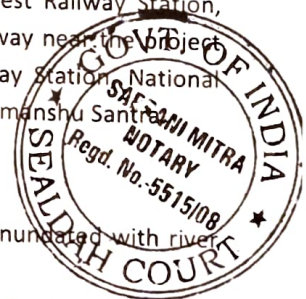
11

**Observation:**

1. During field visit, the Committee (**Figure-1**) observed that the water level in the river was high and almost touching the bank (**Figure-2**) because of which the Committee Members could not reach the exact mining site as demarcated in the approved mining plan. However, the Committee Members reached to the nearest accessible point from which a clear view of the purported site was available and took stock of the situation.
2. No mining activity was observed at the time of the visit at the project site or in the vicinity of the project site. (**Figure-3**).
3. No machinery for extraction of sand was found at the project site at the time of the visit. No vehicles meant for transportation of sand were also observed.
4. No Display Board mentioning the name of the sand block or the project proponent i.e. Mr. Himanshu Santra was found visible at the site.
5. The District Survey Report (DSR) of Purba Bardhaman was approved on 08/09/2022 and was revised on 01/02/2024. **The Mine area as mentioned in the approved mining plan is falling within the potential zone PBBD\_BD2\_DA\_15A as per District Survey Report (DSR) of Purba Bardhaman district approved by SEIAA on 01.02.2024. (Annexure-7).**
6. The petitioner has alleged in the petition that the proposed project will be requiring 32 KLD of water which would create adverse impact in the locality. However, it was observed from the application of Terms of Reference (ToR) made by Mr. Himanshu Santra in the PARIVESH Portal that the water demand for proposed project is only 6.81 KLD. The relevant portion of the application is attached as **Annexure-8**.
7. It was observed that the approach road from the nearest habitation to the river embankment was made of concrete and had suffered normal wear and tear but was observed to be in a reasonably road worthy condition. However, there was only a narrow earthen road from the embankment down to the proposed site and no motorable road was found existing on the day of visit. So the allegation of the petitioner against Mr Himanshu Santra regarding causing damage to the roads was found to be without substance.
8. The estimated distance obtained from Google Earth Image of the project site from nearest Railway Station, National Highway are 4.1KM and 3.0 KM respectively (**Annexure-9**). There is no State Highway near the project site. Moreover, it is noted that the distances of the project site from the nearest Railway Station, National Highway and State Highway have no adverse bearing on the approval of Mining Plan of Mr Himanshu Santra.

**Remarks:**

1. During the field visit no mining activity was observed and the proposed mining area was inundated with river water as the field visit was conducted in the peak of the monsoon season. Moreover, based on an earlier complaint against illegal sand mining by Mr Himanshu Santra, the district administration had conducted a joint inspection by a 3-Man enquiry Committee comprising (i) Block Development Officer, Bardhaman-II Development Block (ii) Block Land and Land Reforms Officer, Bardhaman-II Block and (iii) Officer-in-Charge, Shaktigrah Police Station on 30/05/2024. As per the said report of inspection vide No 734/BL&LRO/BDN-II/24 dated 11/06/2024, no evidence of any sand extraction by Mr Himanshu Santra was noticed at the site even at that point of time. Copy of the inspection report is annexed as **Annexure 10**.
2. The proposed mining project has not obtained Environmental Clearance (EC) yet. The project proponent has only obtained ToR for doing Environmental Impact Assessment (EIA). The ToR granted to the project proponent includes the issue of re-estimation and annual production level based on the replenishment rates reported in the approved DSR of Purba Bardhaman as well as impact on biodiversity.
3. Mr Himanshu Santra, the Project Proponent has to prepare draft EIA report based on which Public Hearing would be conducted subsequently by West Bengal Pollution Control Board (WBPCB). The project proponent will have to



~~12~~

address the issues raised in the said public hearing and prepare the final EIA report which will then be considered during appraisal for Environmental Clearance (EC) by SEIAA.

4. It is further observed that only after Mr Himanshu Santra, the project proponent obtains EC from SEIAA, CTE and CTO form WBPCB, will the Lease Deed be executed between the District Magistrate and Mr Himanshu Santra. Pursuant to the execution and registration of the said lease deed, the project proponent Mr Himanshu Santra will be handed possession of the Kalinagar sand block (Auction Id.:2017\_DMBUW\_676) and thereafter be permitted to excavate sand from the Kalinagar Sand Block (Auction Id: 2017\_DMBUW\_676).

  
25/09/24  
Bishwa Ranjan Mukherjee, WBCS (Exe.)  
Additional District Magistrate and  
District Land and Land Reforms Officer,  
Purba Bardhaman

  
25/9/24  
Chiranjib Dawn, Assistant  
Environmental Engineer,  
Durgapur Regional Office,  
West Bengal Pollution Board

  
25.9.24  
Dr. Rajarshi Chakraborty,  
Environment Officer, Environment  
Department

  
25/09/24  
Subhadeep Kumar Ghosh,  
Mining Officer,  
Asansol

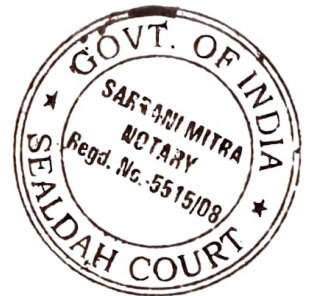




Figure-1: Visiting Committee Members at the site.

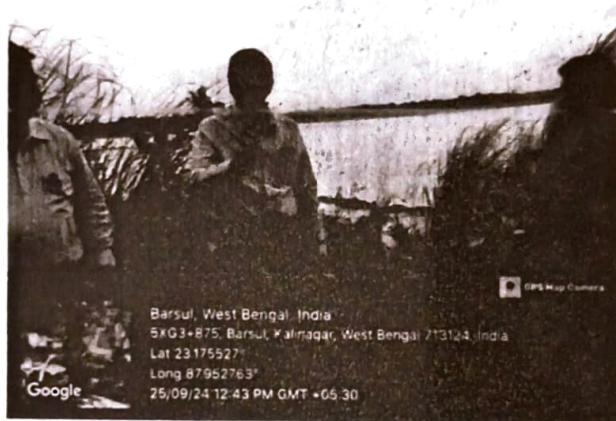


Figure-2: Water level of the River touching the bank.

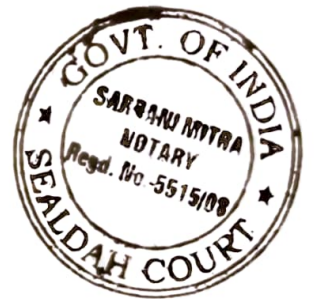


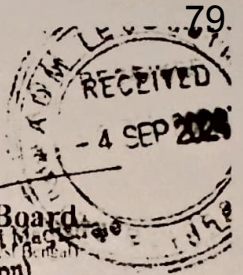
Figure-3: View of the proposed site from the river bank.

EW1276731191N

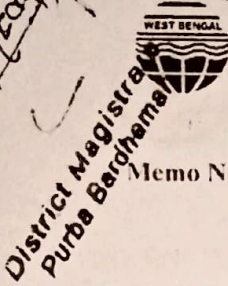
Annexure-1

Filed to: ADM (UR)

for info



ADM (UR) (Edu)



West Bengal Pollution Control Board

(Department of Environment, Planning & Culture)

Additional District Magistrate  
(Education)  
Purba Bardhaman

Memo No.: 3/2 - File No. 3L-WPB-G(X)24

OC MM

Date: 28/08/2024

Order No. 2722

Collection fee

Date: 02/09/24

General

OC, Environment

To: i) The District Magistrate, Purba Bardhaman

Sub: Compliance of direction dated 14.08.2024 of Hon'ble NGT passed in connection with Original Application No. 164/2024 EZ.

Enclosed please find the copy of the order of Hon'ble National Green Tribunal, Eastern Zone Bench dated 14.08.2024 passed in connection with Original Application No. 164/2024 EZ (Debasis Biswas & Ors. Vs The State of West Bengal & Ors.), which speaks for itself.

The Hon'ble National Green Tribunal, Principal Bench was pleased to constitute a Committee, comprising of the following Members:-

- (i) Senior Scientist, West Bengal Pollution Control Board;
- (ii) Senior Scientist, State Environment Impact Assessment Authority (SEIAA), West Bengal;
- (iii) The District Magistrate, Purba Bardhaman or his representative not below the rank of Additional District Magistrate (ADM);
- (iv) Chief Mining Officer or his representative of Senior rank.

The District Magistrate, Purba Bardhaman shall be the Nodal Office for all logistic purposes.

The West Bengal Pollution Control Board has been directed to file the Committee Report on affidavit.

The Committee has been directed to carry out inspection of the various sites with reference to the allegations made by the applicant in the Original Application.

Shri Chiranjib Dawn, Assistant Environmental Engineer, Durgapur Regional Office (M- 9230510757, Email: aee9.wbpcb-wb@bangla.gov.in) of the West Bengal Pollution Control Board will represent the State Pollution Control Board, West Bengal in this matter.

Encl: As stated

Member Secretary



DOENR 1873 05/19/24

0291 05.09.24

1063/MM 09/09/24

Bank P Babu 06/09/24



IMP

Dy 1  
OC MM

Annexure - 2

Put up urgently

OC MM  
09/09/24

Government of West Bengal  
Department of Environment  
Prani Sampad Bhavan, 5<sup>th</sup> Floor, LB-2, Sector - III,  
Salt Lake Kolkata - 700 106  
Phone No. 033 23352742

10.09.24

NO. EN/ 1675 /15017/31/2024

Date: 09.09.2024

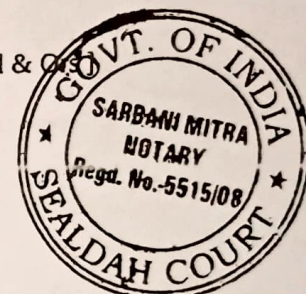
To

The District Magistrate, Purba Bardhaman  
Administrative Building, Kanyapur  
Opposite DAV Public School  
Pincode- 713305

OC MM  
Put up urgently  
K. S. G.

Sub: OA No.164/2024/EZ [ Debasish Biswas & Ors -Vs- State of West Bengal & Ors ]

Ref: National Green Tribunal, Eastern Bench order dated 14.08.2024



Sir

This is to bring to your notice that the above mentioned subject matter has been taken up by the Hon'ble Tribunal, Eastern Zone Bench, Kolkata regarding illegal sand mining on the Damodar river in respect of Sand Block bearing I.D- Burdwan-II/Kalinagar/181(P), 205(P)/F in Mouza- Kalinagar, Dist: Purba Bardhaman-713424. The Hon'ble NGT vide Order dated 14.08.2024, has constituted a Committee comprising the following officials:

- i) Senior Scientist, West Bengal Pollution Control Board;
- ii) Senior Scientist, State Environment Impact Assessment Authority (SEIAA), West Bengal
- iii) District Magistrate, Purba Bardhaman or his representative not below the rank of Additional District Magistrate (A.D.M) and
- iv) Chief Mining Officer or his representative of Senior rank, as the case may be.

The Committee shall visit the site in question and submit its Report with regard to the allegations made in the Original application within four weeks. District Magistrate, Purba Bardhaman shall act as the Nodal office for all logistics purposes. The Committee report on affidavit shall be filed by the West Bengal Pollution Control Board. [Copy of the Order enclosed]

Shri Rajarshi Chakraborty, Environment Officer (Mobile No. 9903254820), E-mail: ([rajarshichakra@gmail.com](mailto:rajarshichakra@gmail.com)) from SEIAA, West Bengal shall represent the Committee.

Yours faithfully,

Member Secretary, SEIAA

Encl: As stated above



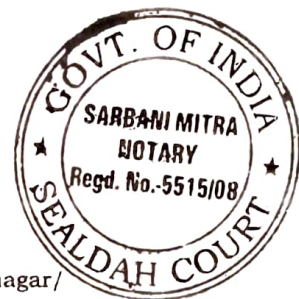
GOVERNMENT OF WEST BENGAL  
Office of the Chief Mining Officer  
COURT ROAD, ASANSOL-713304  
DISTT. PASCHIM BARDHAMAN

e-mail - [cmo.dmm-wb@nic.in](mailto:cmo.dmm-wb@nic.in)

Memo. No. 426/CMO/Sand/EBdn/S/501

Dated Asansol, the 24<sup>th</sup> September, 2024.

To  
The District Magistrate & Collector,  
Purba Bardhaman,  
Court Compound,  
Bardhaman.



Sub: Site visit in respect of Sand Block bearing I.D.-Burdwan-II /Kalinagar/  
181(P), 205(P)/F in Mouza Kalinagar, Dist.-Purba Bardhaman

Ref: Memo. No. PBD-54011(20)/1/2024/MM/740(4) dated 17.09.2024.

Madam,

Inviting reference to the above this is to inform you that Sri Subhadeep Kumar Ghosh, Mining Officer will participate in the joint site visit programme on behalf of the undersigned tomorrow (25.09.2024).

Yours faithfully

*sd/-*

Chief Mining Officer  
Govt. of West Bengal

✓ Memo. No. 426/1(1)/CMO/Sand/EBdn/S/501

Dated Asansol, the 24<sup>th</sup> September, 2024.

Copy forwarded for information and necessary action to:

The Additional District Magistrate and District Land & Land Reforms Officer, Purba Bardhaman.

*Jyoti Das*  
Chief Mining Officer  
Govt. of West Bengal



**GOVERNMENT OF WEST BENGAL**  
**OFFICE OF THE DISTRICT LAND & LAND REFORMS OFFICER**  
**PURBA BARDHAMAN**

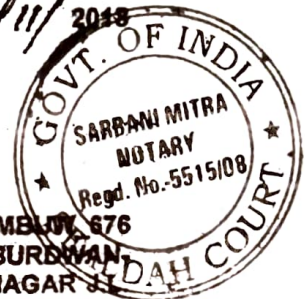
P.O. RAJBATI, BARDHAMAN. PIN CODE: 713104

Phone no.0342-2530641 / Fax no.0342-2533348/e-mail: [dloburdwan@gmail.com](mailto:dloburdwan@gmail.com)

Memo. No.:304/1287 / AUCTION 17/MM/18

Dated: 26/11/2018

To  
**HIMANSHU SANTRA**  
**MANIARI, EKLAKHI**  
**BARDHAMAN - 713427**



**Sub: Letter of Intent (LOI) with reference to e-auction bearing ID No. 2017\_DMBL/676 conducted on 02/08/2017 for grant of mining lease for sand in sand block BURDWAN-II/KALINAGAR/181(P), 205(P)/F located in plot No.s 181(P), 205(P) in Mouza- KALINAGAR J.L. No. 160, P.S. MADHABDIHI, District Purba Bardhaman over an area of 6.04 acres (2.44 hectares).**

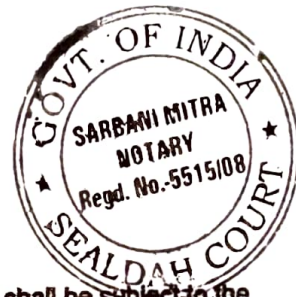
Background

1. The District Committee for Competitive Bidding of Minor Minerals (henceforth the District Committee) Purba Bardhaman, pursuant to rules 36 and 41 of the West Bengal Minor Minerals Concession Rules, 2016 and the West Bengal Minor Minerals (Auction) Rules, 2016 (hereinafter auction rules) issued notice inviting tender dated 19/07/2017 to commence the e-auction process for grant of mining lease for sand in respect of sand block BURDWAN-II/KALINAGAR/181(P), 205(P)/F located in plot No.s 181(P), 205(P) in Mouza- KALINAGAR J.L. No. 160, P.S. MADHABDIHI, District Purba Bardhaman over an area of 6.04 acres ( 2.44 hectares). The e-auction process was conducted in accordance with the said Rules and also the tender document for the said sand block which was duly published in Government's eprocurement portal as per extant rules and HIMANSHU SANTRA has been declared as successful bidder under Rule 9 (8) of the said Auction Rules.

2. As required under Rule 10(1) of the said Auction Rules, HIMANSHU SANTRA has made payment of Rs. 900000/- (NINE LAKH SIX HUNDRED ONLY), through GRN: 19-201718-007655641-2 (SBI) dated 13.09.17, Rs. 1000000 (TEN LAKH) through GRN : 19-201718-010528180-2 (SBI) , dated- 03.11.17, Rs. 600000 (SIX LAKH) through GRN : 19-201819-026720825-2 (ICICI), dated-27.07.18 & Rs. 260000 (TWO LAKH SIXTY THOUSAND) through GRN: 19-201819-027060840-2 along with EMD of Rs. 241600.00/- (TWO LAKH FOURTY ONE THOUSAND SIX HUNDRED ONLY), through DRAFT NO: 005302 (CBC) dated 25/07/2017, towards one-third of the bid amount as first instalment.

Letter of Intent

Accordingly, pursuant to Rule 10 (3) of the said auction Rules, this letter of intent is hereby issued for grant of mining lease for sand in respect of sand block BURDWAN-II/KALINAGAR/181(P), 205(P)/F located in plot No.s 181(P), 205(P) in Mouza- KALINAGAR J.L. No. 160, P.S. MADHABDIHI, District Purba Bardhaman over an area of 6.04 acres ( 2.44 hectares) in favour of HIMANSHU SANTRA for a period of 5 (five) years subject to the following terms and conditions:



Terms and Conditions

1. This letter of intent and subsequent grant of aforementioned mining lease shall be subject to the provisions of the MMDR Act, 1957, West Bengal Minor Minerals Concession Rules, 2016 and West Bengal Minor Minerals (Auction) Rules, 2016 as amended from time to time and HIMANSHU SANTRA shall be granted the mining lease only upon satisfactory completion of the requirements stipulated in the said Rules.
2. The balance amount of bid money shall be payable in three installments with a gap of maximum 45 days each from the date of 1st installment (Sub rule (2) of Rule 10 of auction rules).
3. HIMANSHU SANTRA (henceforth the successful bidder) shall furnish a Mining Plan along with Mine Closure Plan as per model format issued by the Commerce and Industries Department under letter No. 420-C/O/MIN/GEN-MIS/16/2018(PT.) dated 28/07/2018, duly approved by the competent authority within one month from the date of issue of the Letter of Intent (LoI).
4. The successful bidder shall furnish Financial Assurance amounting Rs. 50000 (FIFTY THOUSAND ONLY) in any of the forms mentioned under Rule 18(2) of the West Bengal Minor Minerals Concession Rules, 2016 before execution of the deed of lease.
5. The successful bidder shall furnish performance security, being 10% of the bid amount in the form of bank guarantee before execution of the deed of lease mentioned under Rule 11 of the West Bengal Minor Minerals Auction Rules, 2016.
6. The successful bidder shall submit Environmental Clearance (E.C.) in respect of the above mentioned sand block duly issued by District Level Environment Impact Assessment Authority (DEIAA) or State Level Environment Impact Assessment Authority (SEIAA) or Ministry of Environment, Forests & Climate Change (MoEF&CC) as the case may be as per Environment Impact Assessment Notification 2006, as amended.
7. The successful bidder shall also obtain all other consents, approval, no-objections and the like as required under applicable laws for execution of deed of lease.
8. The successful bidder shall be bound to follow the guidelines stipulated in the Sustainable Sand Mining Management Guidelines, 2016 issued by the Ministry of Environment, Forest and Climate Change, Government of India for undertaking mining operation in the concerned sand block after registration of the duly executed mining lease.
9. The successful bidder have to furnish a Draft Mining Lease Deed in the format as specified in Form- D of the West Bengal Minor Minerals Concession Rules, 2016.
10. The Draft Mining Lease Deed should be prepared in durable papers neatly and sufficient space should be kept in between two lines in order to permit, if necessary, correction therein.
11. The Deed of Lease, after execution, shall be registered by the successful bidder at his own cost and no mining operation should be started before registration of the Deed.
12. The successful bidder shall have to incorporate all the conditions as mentioned in the West Bengal Minor Minerals Concession Rules, 2016 in the Draft Lease Deed.
13. The successful bidder shall have to comply with all the statutory requirements before presenting the Deed of Lease for execution before the appropriate authority.

14. The successful bidder shall have to collect corner coordinate of mine block for preparation of mine plan from the office of the under signed.

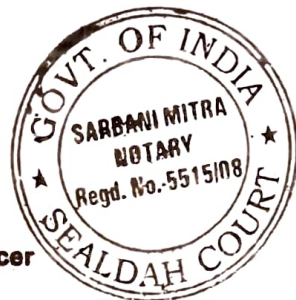
This Letter of Intent (LoI) shall remain valid for a period of one month from the date of its issuance and if the successful bidder is unable to fulfil all the above conditions within this period he may submit an application addressed to the District Magistrate for extension of time. Such application may be submitted to this end for due processing. The District Magistrate being the Chairperson of the District Committee, reserves the right to extend the validity of Letter of Intent (LoI) for such reasonable period as it deemed fit.



Addl. District Magistrate

&

District Land & Land Reforms Officer  
Purba Bardhaman



Memo No: 304/1287(1-4) /AUCTION 17/MM/18

Date: 26/11/2018

Copy forwarded for information to:

1. The District Magistrate & Collector, Purba Bardhaman, West Bengal
2. The Jt. Secretary to the Govt. of W.B., Department of Large Industries and Enterprises, 4 A.N. Tagore Sarani, Camac Street, Kolkata-700016
3. The Chief Mining Officer, Court Road, Asansol, Paschim Bardhaman.
4. The B.L. & L.R.O. - Bardhaman - II.

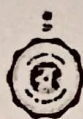


Addl. District Magistrate

&

District Land & Land Reforms Officer  
Purba Bardhaman

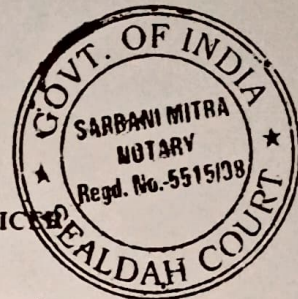




GOVERNMENT OF WEST BENGAL  
OFFICE OF THE DISTRICT LAND AND LAND REFORMS OFFICER  
PURBA BARDHAMAN

PO- RAJBATI, BARDHAMAN. PIN CODE: 713104

Phone No. 0342-2530641/ Fax no. 0342-2533348/e-mail: [dloburdwn@gmail.com](mailto:dloburdwn@gmail.com)



Memo No. 304/ 170 /MM/2022

Dated, Bardhaman the 08/03/2022

To,  
Himanshu Santra,  
Vill- Maniari, Eklakhi,  
Dist.-Purba Bardhaman,  
Pin-713427

Sub: Extention of validity of LoI issued vide memo no. 304/1287/MM/18,  
Dated- 26.11.2018.

Ref: His prayer dated 02.03.2022.

In reference to the above noted matter and in connection with his prayer mentioned above this is to inform him that after due consideration the validity of the previously issued LoI is hereby extended for six months. The LoI shall remain valid for a period of six months from the date of issuance of this letter.

Therefore, he is requested to complete all the formalities including payment of government dues in this regard within the stipulated time frame.

Additional District Magistrate

And

District Land & Land Reforms Officer  
Purba Bardhaman

Memo No. 304/ 170/1 (u) /MM/2022

Dated, Bardhaman the 08/03/2022

Copy to:

- 1) The Jt. Secretary to the Govt. of W.B, Department of Large Industries and Enterprises, 4 A N Tagore Sarani, Camac Street, Kolkata- 700 016.
- 2) The Chief Mining Officer, Court Road, Asansol, Paschim Bardhaman.
- 3) The B.L&L.R.O .Bardhaman-II, Purba Bardhaman.
- 4) The C.A to the District Magistrate, Purba Bardhaman for kind appraisal of the District Magistrate, Purba Bardhaman.

Additional District Magistrate

And

District Land & Land Reforms Officer  
Purba Bardhaman



GOVERNMENT OF WEST BENGAL  
OFFICE OF THE DISTRICT LAND AND LAND REFORMS OFFICER  
PURBA BARDHAMAN

PO- RAJBATI, BARDHAMAN. PIN CODE: 713104

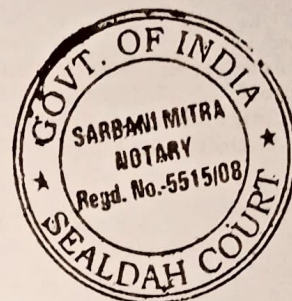
Phone No. 0342-2530641/ Fax no. 0342-2533348/c-mail: [djropurbabardhaman@gmail.com](mailto:djropurbabardhaman@gmail.com)

Memo No. 898/12/MM/2022

Dated Purba Bardhaman the 14/11/2022

To,  
Himanshu Santra  
Maniyari, Eklakhi, Madhabdibi, Purba Bardhaman,  
Pin - 713427

Email id: [himanshu@sant.ra](mailto:himanshu@sant.ra)  
Sand Block at : Bardhaman-II



**Sub: Extension of validity of LoI issued vide memo no. 304/1287/MM/18, Dtd-26.11.18 .**

In reference to the above stated matter this is to inform him that as per the order of the I&CE Department issued vide memo no. 610-ICE/O/MIN/GEN-MIS/27/2021 dated 20.10.2022 the validity of the previous LoI issued vide memo no. 304/1287/MM/18, Dtd-26.11.18 is hereby extended. As per the above mentioned order of I&CE Department the LoI shall remain valid till 60(sixty) days after the disposal of EC application by SEIAA.

Therefore, he is requested to submit application of EC before SEIAA within 20.12.2022 as DSR of this district has already been uploaded in the District Website on 21.10.2022.

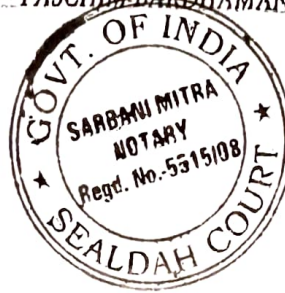
Additional District Magistrate  
And  
District Land & Land Reforms Officer  
Purba Bardhaman

Himanshu Santra

27

Annexure - 5

GOVERNMENT OF WEST BENGAL  
Office of the Chief Mining Officer  
COURT ROAD, ASANSOL-713304,  
DISTT. - PASCHIM BARDHAMAN



Tele Fax: 0341-2252407  
e-mail : [cmo.dmm-wb@nic.in](mailto:cmo.dmm-wb@nic.in)

Memo. No. 290/CMO/Sand/EBdn/S/501

Dated:- Asansol the 27<sup>th</sup> October, 2021.

To  
Sri Himanshu Santra,  
Maniari, Eklakhi, Bardhaman,  
Dist. Purba Bardhaman,  
West Bengal, PIN 713427.

**Subject-** Approval of "Mining Plan" for mining of River-bed Sand' (Mineral) in respect of Sand Block, bearing I.D. Burdwan-II/Kalinagar/181(P), 205(P)/F, in Mouza Kalinagar, over Plot No.s 181(P), 205(P), J.L. No. 160, under P.S. Madhabdih, in Distt. Purba Bardhaman, over an Area of 6.04 Acres (2.44 Hectares), allotted to Himanshu Santra.

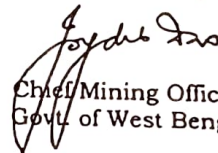
**Ref.-** DL & LRO's office Memo. No. 728/MM/2021, dated 28.09.2021.

Sir,

In terms of Sub rule 2(b) under Rule 4 of the West Bengal Minor Minerals Concession Rules, 2016, I hereby approve the above mentioned "Mining Plan" of Burdwan-II/Kalinagar/181(P), 205(P)/F, Sand Block.

01. This "Mining Plan" is approved without prejudice in any other laws applicable to the Mine from time to time whether made by Central Govt., State Govt. or any other authority and the "Mining Plan" is approved without prejudice to any order or direction from any court of competent jurisdiction.
02. It is also clarified that the approval of your aforesaid "Mining Plan" does not in any way imply the approval of the Govt. in terms of any other provisions of Mines & Minerals (Development & Regulation) Act, 1957 and West Bengal Minor Minerals Concession Rules, 2016, framed thereunder and any other laws.
03. It is also clarified that this approval of "Mining Plan" under West Bengal Minor Mineral Concession Rules, 2016 is subject to the provision of Sustainable Sand Mining Management Guidelines, 2016, Enforcement & Monitoring guidelines for Sand Mining, 2020 and other relevant statutes, orders including those issued by Hon'ble Courts of Law (including National Green Tribunal) as may be applicable to the project area from time to time.
04. It is further clarified that approval of the aforesaid "Mining Plan" is subject to the provisions of the Environment Impact Assessment Notification, 2006 as amended.
05. The approved "Mining Plan" is valid for entire duration of lease period.
06. A copy of Environmental Clearance shall be submitted to this office when the same will be issued by the State Level Environment Impact Assessment Authority (SEIAA), West Bengal.

Yours faithfully,

  
Chief Mining Officer  
Govt. of West Bengal

Memo. No. 290/CMO/1/Sand/EBdn/S/501

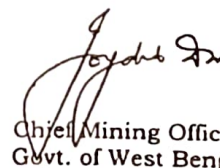
Dated:- Asansol the 27<sup>th</sup> October, 2021.

Copy forwarded for information & necessary action to:-

1. The ADM (LR) & DL & LRO, Purba Bardhaman.
2. Sri Arun Kumar Das (RQP).

Received  
03.11.21  
1.1

o/c

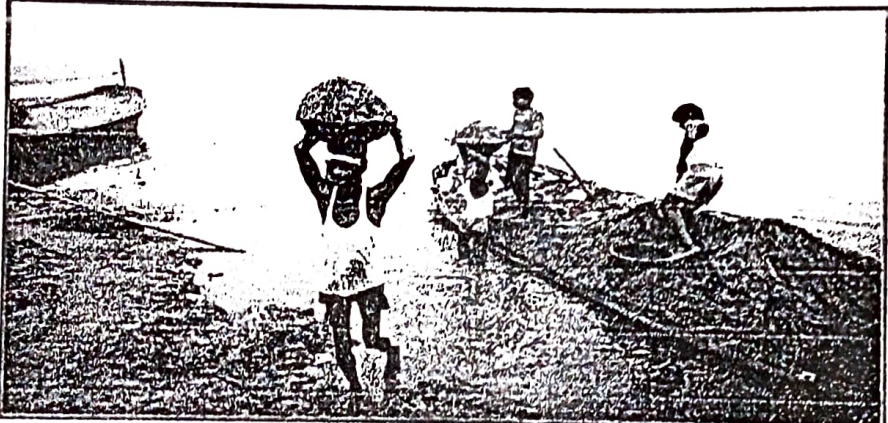
  
Chief Mining Officer  
Govt. of West Bengal

23  
Approved vide Memo No. 290/CMD

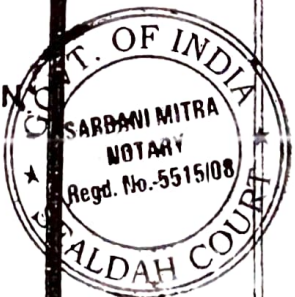
27.10.2021

**MINE PLAN & PROGRESSIVE MINE CLOSURE  
PLAN FOR KALINAGAR SAND MINE ON  
DAMODARRIVER**

FOR THE PERIOD OF (5 YEARS)  
LOCATED AT MOUZA: KALINAGAR, RIVER-DAMODAR  
AUCTION ID: 2017\_DMBUW\_676  
VILLAGE / MOUZA- KALINAGAR, JL NO.-160, PLOT NO- 181(P),205(P)  
SAND BLOCK NO: BURDWAN-II/KALINAGAR/181(P),205(P)/F  
AREA – 6.04 ACRES(2.44 HA) In Non Forest Area  
BLOCK- BURDWAN SADAR-II, P.S.- MADHABDIHI, DIST-PURBA BARDHAMAN



**CATEGORY – "B2" (MINOR MINERAL)**

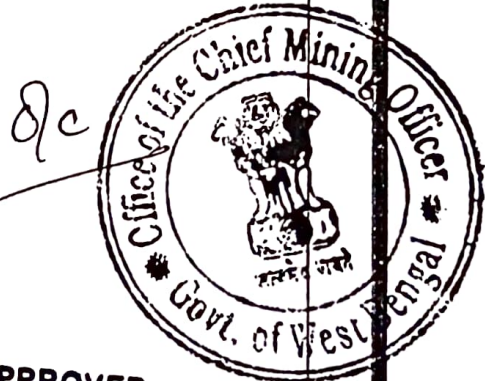


**APPLICANT-**  
HIMANSHU SANTRA  
MANIARI, EKLAKI,  
BARDHAMAN PIN-713427, W.B.

**Prepared By:-** Arun K. Das  
Consultant Mining Engineer  
(RQP/KOL/353/2008)

On behalf of :- Ray Techno Solutions  
Bhatua, Rajhat, Hooghly, W.B:-712123  
ffp2009@gmail.com  
8617261563/798082957

**Arun K. Das; B.E., F.C.C., H.T.M.**  
R.Q.P./KOL/353/2008/A



**APPROVED**

Joydeb Das  
27/10/2021  
**(Joydeb Das)**  
Chief Mining Officer  
Govt of West Bengal

24

ENCLOSURE I

## CONSENT LETTER

The Mining Plan in respect of Kallnagar Sand Mining Project (Minor Mineral), over an area of 6.04 Acres / 2.44 Hectares on river Damodar at Mouza-Kallnagar, P.S.-Madhabdih, Dist. - Purba Bardhaman, West Bengal, over Plot No.-181(P), 205(P); J.L. No.-160 under MMDR Act-1957 & WBMMCR 2016 has been prepared by Shri Arun Kumar Das, RQP/KOL/353/2008/A.

This is to request the Director, Directorate of Mines and Minerals (DMM), Calcutta, W.B. to make any further correspondence regarding any correction of the Mining Plan with the said recognized person at his address below.

**Shri Arun Kumar Das**

RQP No. : RQP/KOL/353/2008/A  
 Address : Flat - 3/B, AVA Mansion  
 Apcar Garden (E), Asansol - 4 (WB)

We hereby undertake that all the modifications/updating as made in the said Mining Plan by the said recognized person be deemed to have been made with our knowledge and consent and shall be acceptable on us and binding in all respects.

Place :

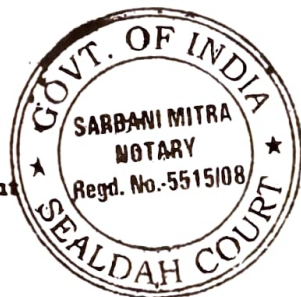
Date :



**Arun K. Das; B.E., F.C.C., H.T.M.**  
**R.Q.P./KOL/353/2008/A**



Signature of the Applicant  
 Himanshu Santra



ENCLOSURE II

CONSENT LETTER

"The provisions of Mines Act, Rules and Regulations made there under have been observed in the Mine Plan, over an area of 6.04 Acres / 2.44 Hectares in Purba Bardhaman district of West Bengal state belonging to Kalinagar Sand Mining Project (Minor Mineral), and where specific permissions are required, the applicant will approach the D.G.M.S. Further, standards prescribed by D.G.M.S. in respect of mines' health will be strictly implemented".

*H Santra*

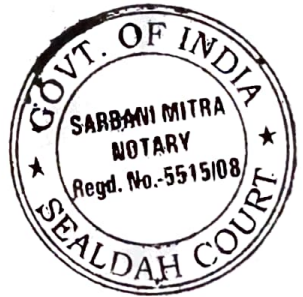
Place :

Date :

Signature of the Applicant  
Himanshu Santra

*Arun K. Das*

Arun K. Das; B.E., F.C.C., H.T.M.  
R.Q.P./KOL/353/2008/A



26

ENCLOSURE III

## CERTIFICATE FROM RQP

The provisions of the West Bengal Minor Mineral Rules, 2016, have been observed in the preparation of the Mine Plan for a Sand Mining Project (Minor Mineral), over an area of 6.04 Acres / 2.44 Hectares on river Damodar at Mouza - Kallnagar, P.S.-Madhabdihi, Dist. - Purba Bardhaman, West Bengal, over Plot No.-181(P),205(P); J.L. No.-160 and whenever specific permissions are required, the applicant will approach the concerned authorities of Directorate of Mines and Minerals (DMM), Calcutta.

The information furnished in the Mine Plan is true and correct to the best of our knowledge.



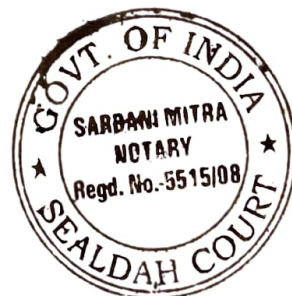
Place :

Date :

Shri Arun Kumar Das

(Name of Recognised Person)

Reg. No. RQP/KOL/353/2008/A

Arun K. Das; B.E., F.C.C., H.T.M.,  
R.Q.P./KOL/353/2008/A

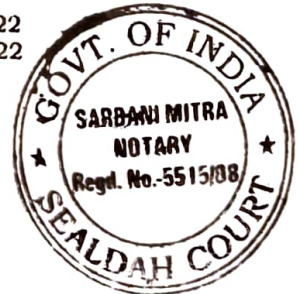
2A

### TABLE OF CONTENTS

|     |   |       |
|-----|---|-------|
| 1.  | <b>General Information about the Applicant</b> .....            | 1     |
| 1.a | Name & Address .....  | 1     |
| 1.b | Status of the Applicant .....                                   | 1     |
| 2.  | <b>GENERAL INFORMATION ABOUT THE MINING LEASE</b> .....         | 2     |
| 2.a | Mineral(s) that the Applicant intends to mine .....             | 2     |
| 2.b | Details of the mining lease .....                               | 2     |
| 3.  | <b>RQP DETAILS</b> .....  | 3     |
|     | Name of the RQP and Address .....                               | 3     |
|     | Name of the Prospecting Agency .....                            | 3     |
| 4.  | <b>LOCATION &amp; ACCESSIBILITY</b> .....                       | 4     |
|     | Location & Accessibility .....                                  | 4     |
| 5.  | <b>PHYSIOGRAPHY, DRAINAGE &amp; CLIMATE</b> .....               | 5     |
|     | Physiography .....  | 5     |
|     | Drainage .....  | 5     |
|     | Climate .....   | 5     |
| 6.  | <b>GEOLOGY OF THE AREA</b> .....                                | 6     |
| 6.a | Regional Geology .....  | 6     |
| 6.b | Local Geology .....   | 6     |
| 6.c | Replenishment Study .....                                       | 7-13  |
| 6.d | Estimation of Geological Reserve and Grade .....                | 14    |
| 7.  | <b>METHOD OF MINING</b> .....                                   | 15    |
| 7.a | Category of Mining .....  | 15    |
| 7.b | Year wise development .....                                     | 15    |
| 7.c | Extraction Methods .....  | 15    |
| 7.d | DETAILS OF EMPLOYMENT .....                                     | 16    |
| 8.  | <b>STACKING OF MINERALS &amp; WASTE</b> .....                   | 16    |
| 9.  | <b>LOADING &amp; TRANSPORTATION OF MINERALS AND WASTE</b> ..... | 16    |
| 9.a | Loading of minerals at mining site .....                        | 16    |
| 9.b | Means of Transport .....  | 17    |
| 10. | <b>ENVIRONMENTAL MANAGEMENT PLAN</b> .....                      | 18    |
| 11. | <b>MINE CLOSURE PLAN &amp; FINANCIAL ASSURANCE</b> .....        | 18-22 |
| 12. | <b>PLANS &amp; SECTIONS</b> .....                               | 22    |



Arun K. Das; B.E., F.C.C., H.T.M.  
R.Q.P./KOL/353/2008/A



### LIST OF TABLES

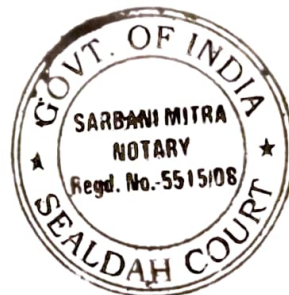
|   |    |
|---|----|
| Table 2-1: Details of the lease area .....                          | 2  |
| Table 4-1: Location Details .....                                   | 4  |
| Table 4-2: Land ownership Pattern .....                             | 4  |
| Table 5-1: Co-ordinates of the Project site .....                   | 5  |
| Table 6-1: Stratigraphic Succession of the Area of the Region ..... | 6  |
| Table 6-2: Measured Minerals Reserve .....                          | 13 |
| Table 7-1: Production Details .....                                 | 14 |
| Table 7-2: Production Planning .....                                | 15 |
| Table 11-1: Land ownership Pattern .....                            | 17 |

### ANNEXURES

- Annex 1: Land Document  
Annex-2: Site Specific Map  
Annex-3: Identity Proof

### LIST OF PLATE

- Plate-1: Mining Lease Plan on Mouza Sheet  
Plate-2: Key Plan  
Plate-3: Location Plan(Google)  
Plate-4: Surface Plan and Sections  
Plate-5: Surface Topographic Plan, Geological Plan and Sections  
Plate-6: Year-wise development Plan  
Plate-7: Composite Plan and Sections showing pit layouts, stacks of minerals and waste, etc.  
( Mine Closure Plan)  
Plate-8: Conceptual Mining Plan  
Plate-9: Environmental Plan  
Plate-10: Location of the Project Site



**Arun K. Das; B.E., F.C.C., H.T.M.  
R.Q.P./KOL/353/2008/A**



29

**GENERAL****INTRODUCTION**

Applicant **Himanshu Santra** is the successful highest bidder of Sand Block No.: **BURDWAN-II/KALINAGAR/181(P),205(P)/F** after participating in sand block auction conducted by Government of West Bengal and will obtain sand mining lease after deed registration. The mining lease will be granted over an areas of **6.04 Acres / 2.44 Hectares** on river Damodar at **Mouza - Kalnagar, P.S-Madhabdih, Dist. - Purba Bardhaman, West Bengal, over Plot No-181 (P),205(P); J.L. No. - 160.**

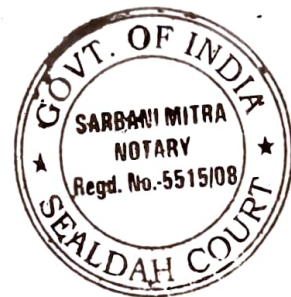
The Mining Lease will be granted for a period of 5 years from the date of deed registration.

While preparing the mining plan proper attention has been paid to ensure that the relevant provisions under MMDR Act-1957 & WBMMC R 2016 are followed.

In order to process further by the concern Department, 8.60 an environment clearance from competent Authority is necessary. For the grant of environment clearance, mining plan is also a component. For this reason the Applicant has given task of Preparation of Mining Plan to **Arun Kumar Das (RQP/KOL/353/2008/A).**

**1. GENERAL INFORMATION ABOUT THE APPLICANT****1.a. Name & Address**

Name: **Himanshu Santra**  
 Authorized signatory: **Himanshu Santra**  
 Address: **MANIARI,EKLAKHI,  
 BARDHAMAN- 713427**

**1.b. STATUS OF THE APPLICANT**

The Applicant is a Private Individual



**Arun K. Das;B.E.,F.C.C.,H.T.M.  
 R.Q.P./KOL/353/2008/A**

20

## 2. GENERAL INFORMATION ABOUT THE MINING LEASE

### 2.a. MINERAL(S) THAT THE APPLICANT INTENDS TO MINE

Mineral(s) ---River bed sand

### 2.b. DETAILS OF THE MINING LEASE

Table 2-1: Details of the lease area

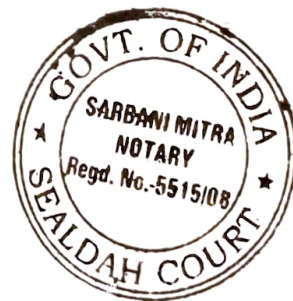
|                                |   |                 |                  |
|--------------------------------|---|-----------------|------------------|
| <b>Lease Period</b>            | 5 years from the date of Registration   |                 |                  |
| <b>Description of the area</b> | Project area 6.04 Acres / 2.44 Hectares on river Damodar at Mouza - Kalinagar, P.S-Madhabdihi, Dist. - Purba Bardhaman, West Bengal, over Plot No.- 181 (P),205(P); J.L. No-160.<br>Sand Block Code: BURDWAN-II/KALINAGAR/181(P),205(P)/F |                 |                  |
| <b>LOCATION (CO-ORDINATES)</b> | <b>BOUNDARY PILLAR NO.</b>  | <b>Latitude</b> | <b>Longitude</b> |
|                                | A   | 23°10'17.06"N   | 87°57'11.56"E    |
|                                | B   | 23°10'17.05"N   | 87°57'16.93"E    |
|                                | C   | 23°10'21.84"N   | 87°57'18.06"E    |
|                                | D   | 23°10'21.74"N   | 87°57'11.91"E    |
| <b>River Name</b>              | Damodar   |                 |                  |

\*Central Point of the Block is 23°10'19.279"N 87°57'14.556"E which is provided by the Concerned DL&LRO office.

\* Location (coordinate) by exploration agency with survey team



Arun K. Das; B.E., F.C.C., H.T.M.  
R.Q.P./KOL/353/2008/A



31

**3. PARTICULARS OF THE RQP****NAME OF THE RQP AND ADDRESS****Shri Arun Kumar Das**

RQP No. : RQP/KOL/353/2008/A  
 Address : Flat - 3/B, AVA Mansion  
 Apcar Garden (E), Asansol - 4 (WB)

**NAME OF THE PROSPECTING AGENCY****Ray Techno Solutions Consultancy Services**

Address : Vill. - Bhatua,  
 P.O. - Rajhat  
 P.S. - Polba  
 Hooghly - 712123  
 Phone : 8617261563 / 7980812957



Arun K. Das; B.E., F.C.C., H.T.M.  
 R.Q.P./KOL/353/2008/A



32

## 4. LOCATION & ACCESSIBILITY OF THE AREA

### LOCATION & ACCESSIBILITY

Kalinagar Sand Mine block is situated about **5 km** away from **NH-2 and Borshul road about 1Km.** Nearest railway station is **Bardhaman Station** which is about **18-20 Km** and **Shaktigarh Railway Station** which is about **6 km** away from the mine site. Nearest Airport is **Netaji Subhash Chandra Bose International Airport and Andal Airport** which is about **95 km** and **75-80 km** from the mine site.

### DETAIL GEOGRAPHY OF THE AREA (TOPOSHEET NO. WITH LATITUDE AND LONGITUDE)

The project area falls under Survey of India **Toposheet No.F45D16 (73M/16)**. The Latitude & Longitude is given in **Table 4.1**. The land ownership pattern is given in **Table 4.2**.

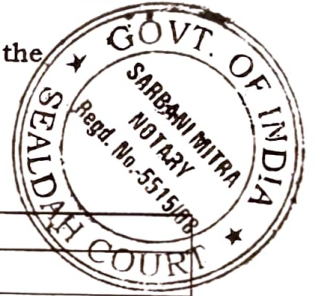
**Table 4-1: Location Details**

| Aspects                    | BOUNDARY FILLAR NO. | Latitude      | Longitude     |
|----------------------------|---------------------|---------------|---------------|
| LOCATION<br>(CO-ORDINATES) | A                   | 23°10'17.06"N | 87°57'11.56"E |
|                            | B                   | 23°10'17.05"N | 87°57'16.93"E |
|                            | C                   | 23°10'21.84"N | 87°57'18.06"E |
|                            | D                   | 23°10'21.74"N | 87°57'11.91"E |
| River Name                 | Damodar             |               |               |

\*Central Point of the Block is 23°10'19.279"N / 87°57'14.556"E which is provided by the Concerned DL&LRO office.

**Table 4-2: Land ownership Pattern**

| Summary         | Area (in Ha) |
|-----------------|--------------|
| Government Land | 2.44         |




### LOCATION MAP

Key Plan showing the location of the area over Survey of India **Toposheet No. F45D16 (73M/16)** on scale 1:50,000 is given in **Plate No. 2**

### LEASE AREA PLAN

Project area or Khasra Plan, on a scale of 1:3960 or 16" = 1 mile forming a part of cadastral plan, showing the Lease hold area and the plots of land located therein is given in **Plate No.1**.

  
Arun K. Das; B.E., F.C.C., H.T.M.  
R.Q.P./KOL/353/2008/A



33

## 5. PHYSIOGRAPHY, DRAINAGE & CLIMATE

### PHYSIOGRAPHY

The Project area falls under the Latitude & Longitude as given in Table 5.1.

**Table 5-1: Co-ordinates of the Project site**

| Aspects                    | BOUNDARY PILLAR NO. | Latitude      | Longitude     |
|----------------------------|---------------------|---------------|---------------|
| LOCATION<br>(CO-ORDINATES) | A                   | 23°10'17.06"N | 87°57'11.56"E |
|                            | B                   | 23°10'17.05"N | 87°57'16.93"E |
|                            | C                   | 23°10'21.84"N | 87°57'18.06"E |
|                            | D                   | 23°10'21.74"N | 87°57'11.91"E |
| River Name                 | Damodar             |               |               |

\*Central Point of the Block is 23°10'19.279"N 87°57'14.556"E which is provided by the Concerned DL&LRO office.

The Damodar River flows from the north-west to south-east direction. The flow rate of the river varies with the quantity of precipitation in the catchment area. A major portion of the precipitation occurs during the monsoon season i.e. from June 15 to September 15 every year.

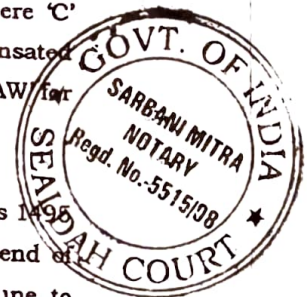
### DRAINAGE


No drainage system / nallah are meeting the riverbed. Hence no precaution is require to protect.

### CLIMATE

The district experiences a climate which is transitional between CWg and AW types, where 'C' stands for 'warm temperate rainy climates with mild winter', 'W' for 'dry winter not compensated by total rain in the rest of the year', 'g' for 'eastern Ganges type of temperature trend' and 'AW' for 'tropical savanna climates'.

Average temperature in hot season is 45°C while at the cold season is 5°C. Average rainfall is 1496 mm. The cold season starts from about the middle of November and continues till the end of February. March to May is dry summer intervened by tropical cyclones and storms. June to September is wet summer while October and November is autumn.



  
Arun K. Das; B.E., F.C.C., H.T.M.  
R.Q.P./KQL/353/2008/A



# GEOLOGY OF THE AREA

34

## 6.a. REGIONAL GEOLOGY

The Geology of the region has been studied mainly by the G.B.I. whereas the State Directorate and others have carried out geological mapping in only selected parts. Geologically, the area consists of the metasedimentary rocks of the Precambrian age, Gondwana sedimentary rocks, Rajmahal Basalts and Upper Tertiary sediments. The tentative stratigraphic succession of the region has been suggested as follows:

Table 6-1: Stratigraphic Succession of the Region

| Division                 | Group    | Formation       | Lithology                    |
|--------------------------|----------|-----------------|------------------------------|
| Upper Gondwana           | Jabalpur | Uinia           | Sandstone, Shale             |
|                          |          | Jabalpur        | Claystone, Sandstone         |
|                          |          | Chaugnon        | Claystone, Sandstone         |
|                          | Rajmahal | Kota            | Sandstone, Grits, Coal Bands |
|                          |          | Rajmahal        | Basaltic Lava flows          |
|                          | Mahadev  | Maleri          | Red Sandstone, Claystone     |
|                          |          | Panchmari       | Brown Sandstone, Shales      |
| ----- Unconformity ----- |          |                 |                              |
| Lower Gondwana           | Panchet  | Panchet         | Brown Sandstone, Shales      |
|                          |          | Ranigunj        | Sandstone, Shale, Coal Seam  |
|                          |          | Barren Measures | Sandstone, Ironstone Shale   |
|                          |          | Barakar         | Sandstone, Shale, Coal Seam  |
|                          |          | Karharbari      | Sandstone, Grits, Coal Seam  |
|                          | Talchir  | Rikba           | Sandstones                   |
|                          |          | Talchir         | Greenish Shale               |
|                          |          | Boulder Bed     | Boulder Bed                  |
|                          |          |                 |                              |

## 6.b. LOCAL GEOLOGY

The local geology of Purba -Bardhaman district is a flat alluvial plain, that can be divided into four prominent topographical regions. On the north the Kanksa Kotugram Plain lies along the Ajay, with joins the Bhagirathi. The Bardhaman Plain occupies the central area of the district, the Damodar on the south and the south-east. On the southern part is the Khandaghosh plain. The Bhagirathi flows along the eastern boundary of the district, and the Bhagirathi basin occupies the eastern part of the district. The undulating laterite topography of Paschim Bardhaman district extends up to Ausgram area of this district.

Arun K. Das: B.E., F.C.C., H.I.M.  
R.O.P./KOL/363/2008/A



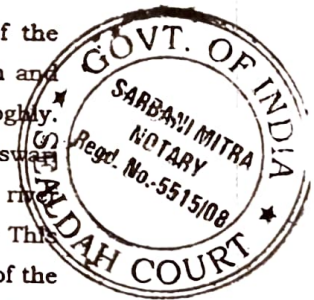
## 6.c. REPLENISHMENT STUDY

**6.c.(i). Origin and control of Mineralization:-** River generally gets its full shape and water flow fed by smaller tributaries which are geo-morphologically termed as catchment area. The river Damodar has got its water source in the catchment zone of Chotonagpur Plateau which is made up of different hills and hillocks composed of varying rocks.

The rocks in the catchment zone gets weathered, decomposed by natural agencies like air and rainfalls. With prolonged process of weathering and decomposition these rocks become fragmented and broken which ultimately moves with water in the tributaries to the mother river. This mineralization in river depends upon the prescription rates i.e; increase in rainfall increases the carrying of mineralization. As our proposed mining site is located at Mouza-Kalinagar, P.S-Madhabdihi Dist-Purba-Bardhaman so we will discuss about the origin and control of mineralization of the said river.

The mineralization in river depends upon the precipitation rates, i.e; increase in rainfall increases the carrying of mineralization. We know that the river bed sand replenished every year with the sand carried out with flow of water in monsoon and there is no such control of mineralization as it depends on the nature of flow of river water. After Dishergarh, the Damodar river enters flat alluvial plains and runs eastward up to Barsal in Bardhaman and the flow of the river becomes very sluggish at this stage. In this portion Damodar receives its last tributary, the Sali from the south and after wards the Damodar river takes a sharp turn towards south near the village Chachai, 24 Km South east of Bardhaman .

Within its elbow shaped area several spill channels are found to carry surplus water of the Damodar during monsoon months. After traversing some area the river turns towards south and its distributory named the Kana Damodar, which ultimately drains out water in the Hooghly. Traversing further towards South Damodar splits into two important channels, the Mundeswari and the Damodar. At present 75% of the runoff from the Damodar river is carried by the river Mundeswari through the Begor and Mushir Hanas and drain out water in the Rupnarayan. This channel cannot carry the total discharge of flood of Damodar and as a result the elbow area of the Damodar gets inundated occasionally notwithstanding the construction of the barrage and dams over the Damodar in its upstream characteristics (hydraulic geometry and stream flow) of the proposed site based on discharge measurements and statistical values determine the total sediment load. Hydraulic geometry deals with variation in channel characteristics in relation to variation in discharge. Mainly two sets of variation take place, i.e; variations at a particular cross section and variations along the length of the stream (downstream variations.) Stream flow characteristics include annual instantaneous peak discharges, which means maximum and minimum daily discharges and flow duration.



### 6.c.(ii). DEPOSITION OF MINERALS IN RIVER BED

When the sediment transporting capacity of river at a particular point become less than sediment load being carried, as a result of reduction, the velocity due to increase in cross section or reduction in slope of the river, the excess sediment get deposited on the river bed. Here the functionality of Damodar fluvial system is controlled by dams, barrage, weirs, sluices, embankments and canals, maintaining a dynamic and anthropogenic processes. Due to dams, alteration of the flow regime, channel characteristics and the sediment supply of the river is changes year to year. The low volume of the water released downstream during dry months virtually transform river into sandy waste whereas the high discharge released during monsoon months convert to vigorous flowing channel which results in shifting of channel. Although some sediment is trapped in the reservoirs, a million of sediment nevertheless pours into the river from the uncontrolled stretch. Embankments constrict the active floodplain in lower Damodar river basin and compel the river decapitate its energy within the narrow sandy bed.

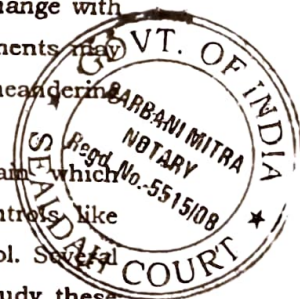
We know that deposition of minerals in river bed of any river depends on its dams, barrage, weir, sluices, embankments, canals etc, such as our proposed site, deposition of minerals depends on the load management system of Damodar river Basin. Deposition of sand is generally found on the opposite bank of the flowing channel of the rivers.

### 6.c.(iii) GEO-MORPHOLOGY

When increase or decrease of predominant flow and also for the sediment load of a river, there is a change in riverbed level, the changes in river bed channel depth caused by aggradations or degradation of riverbed can be simulated. When attempting to model a natural system like fluvial morphology there is a significant limitation because channel cross section usually change with time and adjustment of both width and depth are quite common. River with adjustments may occur due to wide range of morphological changes and channel responses, showing meandering (Convex/Concave) and the land shape which depends upon the character of land mass.

From the point of origin the river Damodar has been travelling through the rocky terrain which have been in topographically controlled zone with signs of remote structural controls like lineament and alteration of rock layering's. Using it's province of topographical control. Several dams have been constructed for irrigation purpose (Engineering geologists use to study these topography, composition and structure of rocks in selecting dams.).With the increasing precipitation rate/rate of discharge the fluvial energy increases with ultimate increase in carrying capacity. Generally at the meandering part (Convex/Concave) the fluvial energy becomes lesser showing deposition of sand sized Minerals.

At the old stage of river its lower energy level manifests in carrying silt or clay sized minerals in the plain to very less topographic controlled zone. It originates as a canal from Srirampur, a village in Madhabdihi at P.S-Raina-I. Mundeswari river is a small river which causes floods in Hooghly, Purba Midnapur and Howrah districts during monsoons. Durgapur Barrage has been constructed to control the stream flow to restrict the flood regime and irrigation.



27


### 6.c.(iv). CLIMATIC ZONE, RAIN FALL, DRAINAGE PATTERN, ETC.:-

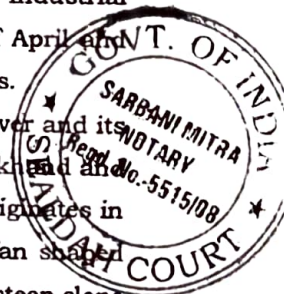
The Damodar is referred to as a tropical river as it flows through a tropical environment. The tropicity of environment is primarily a product of thermal criteria. The climate of the Damodar area is characterized by very mild winters and hot wet summers. Like the rest of the country, the Damodar basin area experiences two principal seasons. In winter, surface air flows in north-easterly direction, which is continental in origin and with low humidity and the season is known as north-east winter monsoon. During the summer months of June to September, the general flow of winds is from the sea to the land containing much humidity with cloud and rain, the direction of wind is south-westerly and the season is known as south-west Monsoon. Besides there are transitional seasons of hot weather month of April, May and retreating monsoon months of October and November. The month of May is the peak of summer season with an average maximum temperature of 43 degree Celsius and minimum of 30 degree celsius. The average annual temperature is 26.3 degree Celsius. The temperature during the winter season fall below 4 degree at some locations in the Damodar river Basin.

The seasonal rainfall occurs due to the South-Western monsoon every year and floods occur depending on the intensity of the storms. Over the basin, the annual rainfall varies between 765 and 1607 mm with an average of 1200 mm of which 80 % occurs during the monsoon season. The average annual rainfall in the three sub-catchments namely Barakar, Damodar and lower basin are approximately 1200 mm, 1250mm and 1400 mm, respectively. The rainfall is the highest in the southern part and decreases gradually towards the northern part of the Barakar catchment. Rainfall due to squalls in upper basin are not uncommon during summer season. The evaporation is maximum during the summer season (21mm) and minimum in monsoon season(2.5 mm).The Damodar is seasonal and flood prone mainly on account of reasons, which are physiographic and meteorological in nature. Floods ravage the lower valley area, which is not only very fertile owing to its alluvial plain suitable for irrigation and agriculture but also used for various industrial activities. Meager rainfall due to conventional thunderstorms occurs in the months of April and May. The rainfall during winter occurs occasionally associated with western disturbances.

The core drainage system of the Damodar river basin constructed by the Damodar river and its principal tributary, the river Barakar, that drains about 23,370.98 sq. km. area of Jharkhand and West Bengal states. In its upper reaches the Damodar is known as the Deonad, and originates in Khamarpet hill range (1,062 m) near Chandwa in Palamau district and drains into a fan shaped catchment area of about 25,820 sq km. The waters of the Deonad traverse through the steep slope of the pat region to descend on the gneissic flat plain of Chandwa basin and the sluggish flow of the river over the flat top surface, which later on got dissected into tabular blocks by fluvial action. The river Damodar enters the Gondwana Basin after the confluence of the Dharamauti near Mahuamilan, and the topography around the river changes. The gradient of the stream becomes steeper and waterfalls abound the course traverses through the hilly region and woody country carved out of hard sandstone and grit of the Gondwana age. In this section, the Damodar receives a number of tributaries both from the southern and the northern slopes.

9

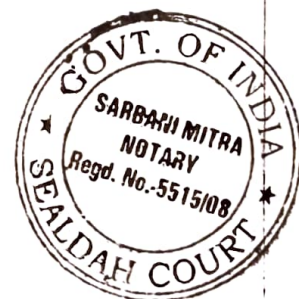
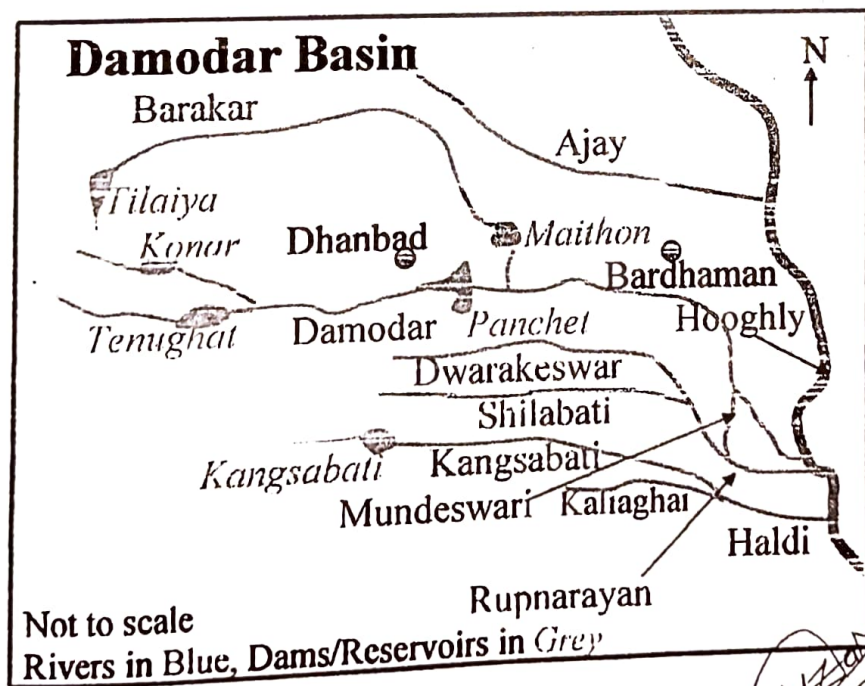
  
Arun K. Das; B.E., F.C.C., H.T.M.  
R.Q.P./KOL/353/2008/A



78

The southern tributaries like Chati, Sophi, Batuka, Dainkata, Nalkari and Dhobdhab and flow over the granite-gneissic surface of Ranchi plateau, while the northern tributaries are Haharo (W), Bakri-Garhi, Haharo (E) and Marmarhar originate from the Hazaribagh plateau and flow for considerable distance over the Archaean gneiss before entering the Gondwana basin. The Konar and Bokaro setrams originate in the Hazaribagh plateau near Hazaribagh town flows over the Archaean gneiss country while Bokaro traverses through the Archaean gneiss country for some distance and finally enters the Gondwana basin near Bokaro coalfields. The combined courses of the Konar and Bokaro rivers meet the Damodar near Tenughat. The Damodar flows eastward from Tenughat and receives a few other tributaries from the north and south before reaching Panchet. From the north the Jamunia and the Khudia join the Damodar after flowing over the Jharia coalfields, while from the south Ijri and the Gowai meander eastward to meet the Damodar near the western end of Panchet hill reservoir. After traverse some area the river turning towards south and it has a distributary named the Kana Damodar, which ultimately drains out water in the Hooghly.

Traversing further towards south Damodar splits into two important channels, the Mundeswari and the Damodar. After Burdwan subdivision the Damodar river flows over the Arambagh subdivision of Hooghly district and Uluberia subdivision of Howrah district to meet the Hooghly opposite Falta. At present 75% of the runoff from the Damodar river is carried by the river Mundeswari through the Begor and the Mushir hanas and drains out water in the Rupnarayan. **The drainage pattern of Damodar Basin will be maplyclear from the following picture.**




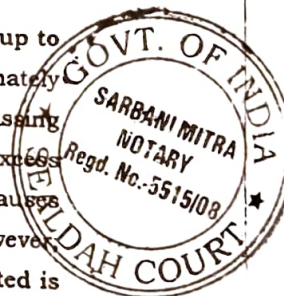
### 6.c.(v) SEDIMENTATION STUDY:-

The moving water over the land surface is dominant agent of land space alteration. Near surface weathering provide sediment load for the flowing streams. Some of the load gets deposited along the path of the river and only the rivers to the sea carry a fraction of total waste material from the lands. In fact, the land shape evolve essentially due to the water flowing over it in small streams, which combine to form rivers. The process of these water courses eroding and cornering water is a continuous process and has been going on since the formulation of this planet and the elements surrounding it. Though rivers are ever changing but in a man's lifetime it may not be much depending on the land space through which it passes. Sediment transport is essentially a two-phase flow in which the fluid phase is air or water and the solid phase is sediment particle. The process of erosion, transport and deposition of sediment, collectively termed as sedimentation, are natural process and have been occurring throughout mainly through rolling, sliding or saltation (bouncing against the riverbed). Finer particles (with low velocities) are entrained in suspension by the fluid turbulence and transported along the channel in suspension. This mode of transport is called suspended load. Sometimes particles from upland catchment comprise of the finest suspended sediment (typically less than 0.00195mm in diameter) called 'Wash Load', are also transported in suspension. These particles remain in permanent suspension as they are small enough to bounce with water molecules and stay afloat. The combined bed material and wash load is called "total load". Bed load consists mostly of particles in the size category of 0.1mm in diameter. Particles with diameter less than 0.1mm are likely to be classified as suspended material. Sand particles range in diameter from 0.0625 mm to 2.0 mm. Sand mostly is transported as bed load. Sand consists of small grains or particles of minerals and rock fragments. Although these grains may be of any mineral composition the dominant components of sand is the mineral quartz, which is composed of silica (silicon di-oxide) found in inland continental setting and non-tropical coastal setting. Quartz is particularly prevented as it is extremely resistant to physical and chemical breakdown by the weathering process.

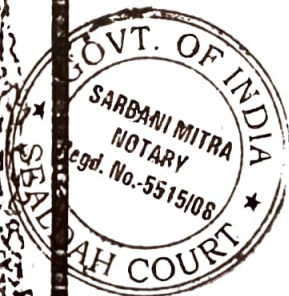
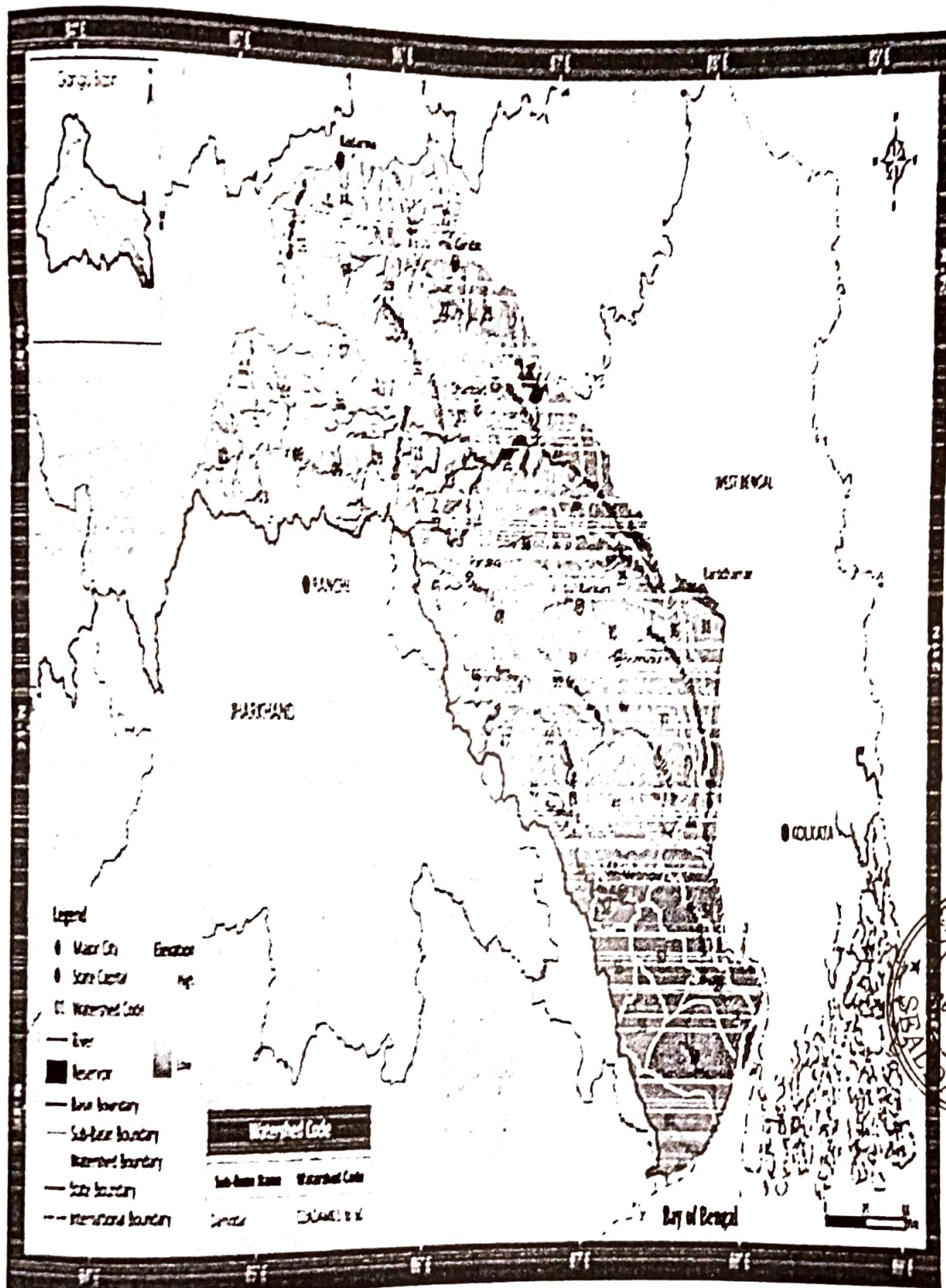
Our project site is over Damodar riverbed and is covered with considerable volume of sand up to depths of 4-5m from riverbed surface. The nearest barrage from the project site is approximately 74.8 km. A thin water stream was observed which is a part of the river channel and is passing near by the west bank of the river. This water stream during monsoon season is fed with excess discharge from Durgapur barrage thus flooding the entire Damodar river channel and causes sedimentation/replenishment of sand in the excavated pits created due to mining. This however during the cusp of the monsoon season, the maximum amount of sand, which was excavated is replenished naturally. So, almost 100% of the sand is replenished every year.

The mining shall be adopted to facilitate the sedimentation of the excavated pits. The mining is suggested on cyclic basis in such a way that pit of previous year mining will act as depository for the monsoon season. Sand will be extracted from the pit lot during one year. 100% excavated quantity of the same are automatically replenished by rainfall in the monsoon by the river itself on account of its flow and velocity.

  
Arun K. Das; B.E., F.C.C., H.T.M.  
R.Q.P./KOL/353/2008/A



40



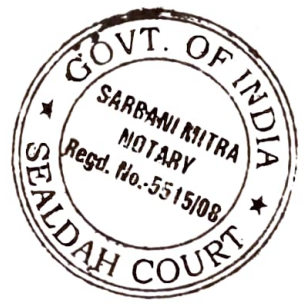
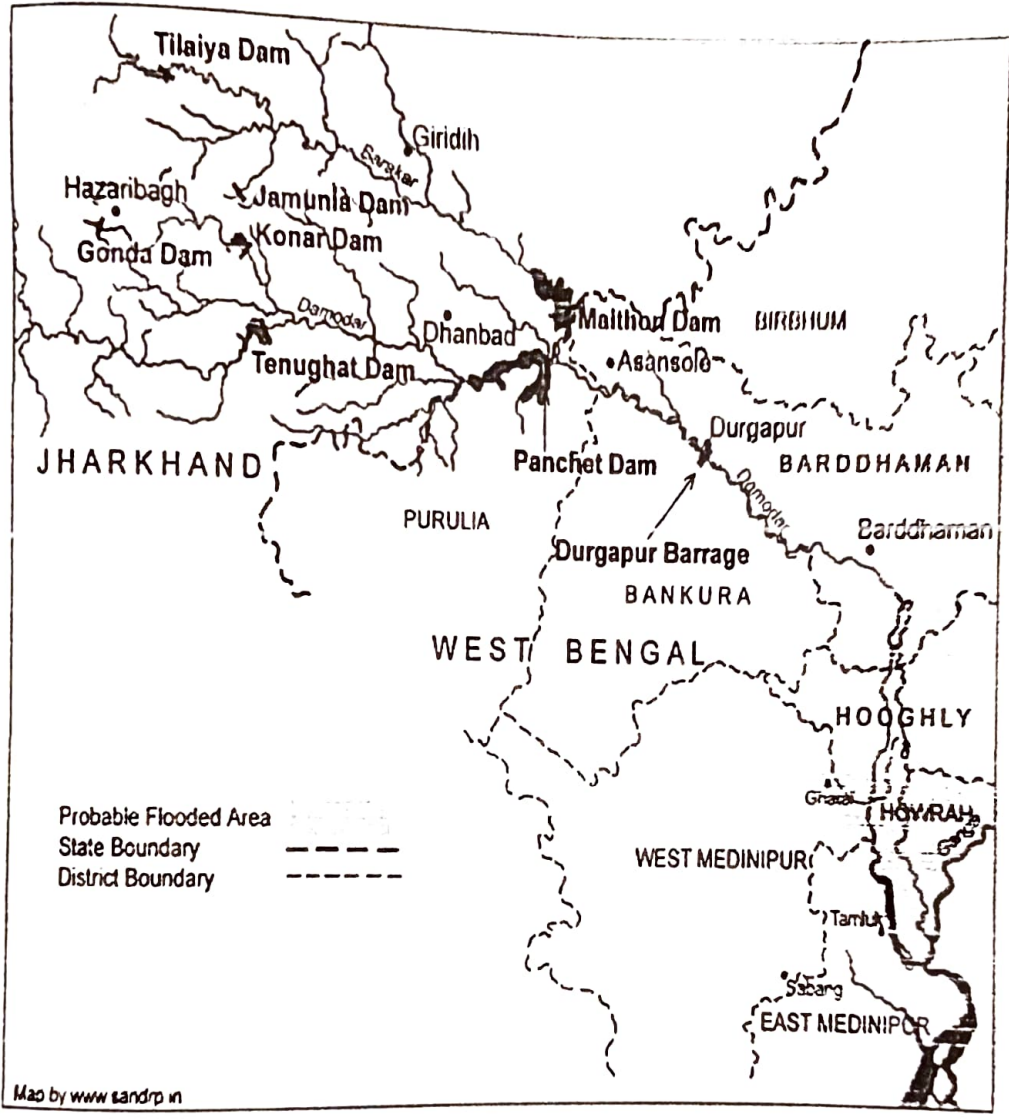
**WRIS MAP OF DAMODAR BASIN**

Arun K. Das: B.E., FCC., I.I.T.M.  
R.O.P./KOL/353/2008/A



41

From the following map we can get a brief idea about the nearby towns from the following etc



*(Signature)*  
 Arun K. Das; B.E., F.C.C., H.I.M.  
 R.Q.P./KOL/353/2008/A



42

## 6.d. Estimation of Geological Reserve and Grade.

**METHOD OF ESTIMATION OF RESERVES:** The total area for applied lease is 2.44 ha. The sand gets deposited every monsoon due to wash load and bed load and must be removed from time to time to avoid flooding of shore. Sand is available in the middle portion of the riverbed as well as near the riverbank. It is permitted to remove sand only up to 3m depths or up to ground water level, whichever is less. After making trench in the riverbed, it could be observed that up to 3m depths at the lease area in the river, no water level could be encountered. Hence, sand up to 3m depths can be mined. The estimation of the reserves has been drawn on the basis of the area under lease. The Lease Area in ha multiplied by 10000 will give the area in m<sup>2</sup>. The ultimate depth of sand mining in this case is 3m. Hence the area in m<sup>2</sup> multiplied by the thickness will give the volume of the geological reserve. The details are given below with reference of Geological plan.

**MINEABLE RESERVES:** The total reserves as estimated within the leasehold area at present approximately 73220 m<sup>3</sup> and sand will be replenished every year after monsoon. The mineable reserves will be realized after keeping 100m distance from the river bank or 1/3<sup>rd</sup> of the distance between the bank lines, whichever is less in order to protect the river banks. 100m distance from the river bank is left in this case. After leaving 7.5m barrier zone, 1.97 ha area are left for mining which gives a mineable reserve of 59100 m<sup>3</sup>. The mining will be done only up to a maximum depth of 3m. Table 6.2 gives the geological reserve and mineable reserve.

**Table 6-2: Measured Mineral Reserve**


| Area (ha) | Area (m <sup>2</sup> ) | Avg. Thickness in m | Geological reserve in m <sup>3</sup> | Mineable reserve in m <sup>3</sup> |
|-----------|------------------------|---------------------|--------------------------------------|------------------------------------|
| 2.44      | 24400                  | 3                   | 73220                                | 59100                              |

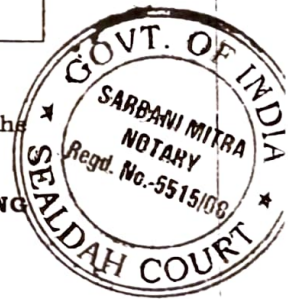
**ANTICIPATED LIFE OF THE MINE:** The reserve estimated above will replenish every year. So, the life of the mine will be for the entire lease period.

### FEASIBILITY STUDY BASED ON THE GEOGRAPHICAL CONDITIONS AND OPERATING CONDITIONS:

- INFRASTRUCTURE:** Road is present near the working site. Manpower is cheaply available.
- GEOLOGY** : Geologically the area is potential and the deposit is sufficient for fulfillment of the requirement.
- LEGAL MATTERS** : Leasehold area is valid as per the rule of WBMMC Rule 2016. There will be no displacement. Land is Government land.
- OPERATING** : The Applicant has all the mining equipment's used for the scientific Manual mining. The mining is eco-friendly.

14

  
Arun K. Das; B.E., F.C.C., H.T.M.  
R.Q.P./KOL/353/2008/A



42

## 7. METHOD OF MINING

### 7.a. CATEGORY OF MINING

Total area of the mine is **6.04 Acres / 2.44 Hectares**. So according to MOEF&CC notification, it is B2 categories project.

### 7.b. YEAR WISE DEVELOPMENT

No development work is required as the mining is for riverbed sand. Excavation of river sand will be done manually and transportation by front end loaders. It has been proposed to collect approximately 59100 m<sup>3</sup>/year. The riverbed material will be replenished during the monsoon every year.

### YEAR WISE PRODUCTION

Sand will be lifted from the riverbed for all the eight months except the monsoon period from June to September. Proposed production for next five years is given in Table 7.1.

Table 7-1: Production Details

| Year            | Geological reserve in m <sup>3</sup> | Production in m <sup>3</sup> | Balance Deposit in m <sup>3</sup> | Replenishment in m <sup>3</sup> |
|-----------------|--------------------------------------|------------------------------|-----------------------------------|---------------------------------|
| 1 <sup>st</sup> | 73200                                | 59100                        | 14100                             | 59100                           |
| 2 <sup>nd</sup> | 73200                                | 59100                        | 14100                             | 59100                           |
| 3 <sup>rd</sup> | 73200                                | 59100                        | 14100                             | 59100                           |
| 4 <sup>th</sup> | 73200                                | 59100                        | 14100                             | 59100                           |
| 5 <sup>th</sup> | 73200                                | 59100                        | 14100                             | 59100                           |

**PROPOSED RATE OF PRODUCTION WHEN THE MINE IS FULLY DEVELOPMENT:** Proposed rate of production will be 59100 m<sup>3</sup>/year at the stage of fully development of mine.


**MINEABLE RESERVES AND ANTICIPATED LIFE OF THE MINE:** 59100 m<sup>3</sup>/year is the quantity of reserve estimated as mineable reserves and river sand will be replenished every year after monsoon. As such the life of the mine will continue till the period of lease and subsequent lease renewals.

### 7.C Extraction method:-

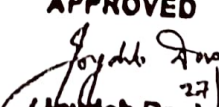
Opencast Manual Mining method will be adopted for this mining operation.

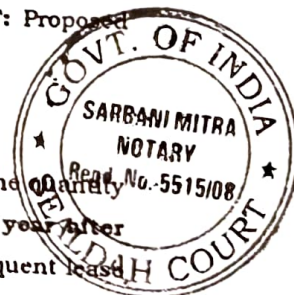
### METHOD FOR DEVELOPING AND WORKING THE DEPOSITS

The sand deposited, as riverbed material will be collected in its existing form manually.

  
Arun K. Das; B.E., F.C.C., H.T.M.  
R.Q.P./KOL/353/2008/A

15

**APPROVED**  
  
(Joydeb Das)  
Chief Mining Officer  
Govt. of West Bengal  
27/10/2021



44

**METHOD OF MINING:** The mining is confined to collection of sand from the riverbed. The operation will be manually with the help of spade; hands shovel in which the riverbed material will be collected in its existing form. Sand Mining will be carried out only up to a depth of 3m at riverbank and in water it could not be measured. Hand tools like shovel, pan, sieve etc. will be used. Mining will be carried out only during the daytime. To prevent collapse of pit, sand will be removed from 1m layer from the entire lease first before removing the next 1m layer. The last 1m layer will be removed at the end.

**UNDERGROUND WORKING:** Not Applicable.

**EXTENT OF MECHANIZATION:** No mechanization will be done.

Table 7-2: Production Planning

| S. No. | Assumptions  | Quantity            |
|--------|--|---------------------|
| 1      | Average Daily Production Approx.                             | 246 m <sup>3</sup>  |
| 2      | Total excavation monthly (excluding 4 months monsoon period) | 7388 m <sup>3</sup> |
| 3      | Sand handling per man per day                                | 2.05 m <sup>3</sup> |
| 4      | Total manpower required per day                              | 120                 |

#### 7.d. DETAILS OF EMPLOYMENT

Local manpower will be used for sand mining in the mine site. Manpower will be depended on the production capacity per day. The capacity of sand handling of a man is 2.05 m<sup>3</sup>. therefore, the number of man employed will depend on the per day production. As per the calculation the total 180 miners will be employed for the project.


#### 8. STACKING OF MINERALS & WASTE

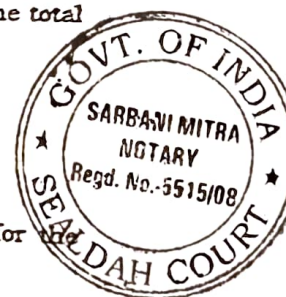
Since there is no waste or mineral rejects generation in the mine hence no proposal for stacking is discussed under this chapter. The entire mineral produced is useable.

#### 9. LOADING & TRANSPORTION OF MINERALS AND WASTE

##### 9.a. LOADING OF MINERALS AT MINE SITE

The loading of riverbed sand will be done manually at mine site.

  
Arun K. Das; B.E., F.C.C., H.T.M.  
R.Q.P./KOL/353/2008/A



45

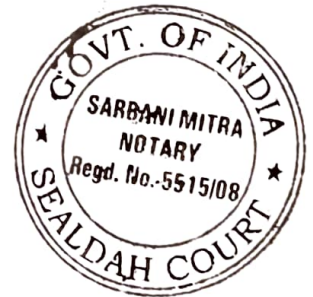
**9.b. MEANS OF TRANSPORT**

The sand transportation will be done by ensuring the following:

- 1) All bigger trucks/dumpers having capacity 10 Tones.
- 2) Trucks/dumpers will be properly covered.
- 3) Vehicles will be provided with all safety measures like reverse alarm, back-mirror, etc.
- 4) Vehicles will have pollution-test certificates.
- 5) Regular checks will be done by the management to ensure the health of the trucks.
- 6) Regular water spraying at fixed interval of time.
- 7) Maintenance of roads to fill all pot-holes to avoid spillage.
- 8) Regular cleaning of road to avoid any accumulation of sand.
- 9) Loading and Unloading of sand will be done manually.



**Arun K. Das; B.E., F.C.C., H.T.M.  
R.Q.P./KOL/353/2008/A**



## 10. ENVIRONMENTAL MANAGEMENT PLAN

The environment management plan for the riverbed mining project will be followed according to West Bengal Mining Concession Rules 2016. Afforestation by planting native tree species will be done outside the Project area, preferably in local school premises in consultation with the Gram-Panchayat.

## 11. MINE CLOSURE PLAN & FINANCIAL ASSURANCE

Applicant **Himanshu Santra** is the successful highest bidder of Sand Block No.: **BURDWAN-II/KALINAGAR/181(P),205(P)/F** after participating in sand block auction conducted by Government of West Bengal and will obtain sand mining lease after deed registration. The mining lease will be granted over an areas of **6.04 Acres / 2.44 Hectares** on **river Damodar** at **Mouza - Kalinagar, P.S-Madhabdihi, Dist. - Purba Bardhaman, West Bengal, over Plot No.-181 (P), 205(P); J.L. No. - 160.**

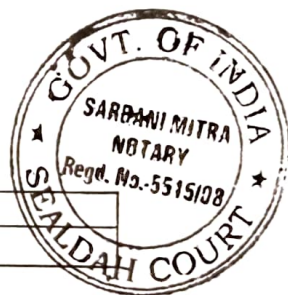
The Mining Lease will be granted for a period of **5 years** from the **date of deed registration.**

### Name & Address of Applicant:-

Name: **Himanshu Santra**  
 Authorized signatory **Himanshu Santra**  
 Address: **MANIARI, EKLAKHI,  
 BARDHAMAN- 713427**

Table 11-1: Land ownership Pattern


| Summary         | Area (in Ha) |
|-----------------|--------------|
| Government Land | 2.44         |



**EXISTING LAND USE PATTERN:** The land use of the mine lease area on the riverbed of Damodar and there will be no change in land use after operation. The sand will be replenished every year during the monsoon season. The ultimate land use of the mine lease area will not be changed

### REASONS FOR CLOSURE:

Not Applicable

  
**Arun K. Das; B.E., F.C.C., H.T.M.**  
**R Q.P./KOL/353/2008/A**



47

**STATUTORY OBLIGATIONS:**

The Applicant will be bound to implement all the legal obligation like special conditions imposed while execution of lease deed, approval of mining plan, directives issued by the Central & State Government, conditions imposed by the Ministry of Environment & Forests, State or Central Pollution Control Board or by any other organization.

**CLOSURE PLAN PREPARATION**

Name: **Himanshu Santra**  
 Authorized signatory **Himanshu Santra**  
 Address: **MANIARI, EKLAKHII,  
 BARDHAMAN- 713427**

**NAME OF THE RQP PREPARING MINING PLAN:****Shri Arun Kumar Das**


RQP No. : RQP/KOL/353/2008/A  
 Address : Flat - 3/B, AVA Mansion  
 Apcar Garden (E), Asansol - 4 (WB)

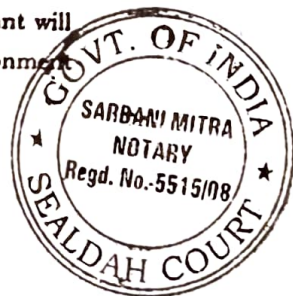
**REVIEW OF IMPLEMENTATION OF MINING PLAN/SCHEME OF MINING UPTO THE FINAL CLOSURE OF MINE**

The area is under mining operation and during the course of mining operation the Applicant will adopt the measures for protection of environment. Whatever data for protection of environment will be, the Applicant will provide the same time to time.

**MINED-OUT LAND**

The Character of the project area on the riverbed of Damodar will remain unchanged even after operation. The sand will be replenished every year during the monsoon season. The ultimate land use of the mine lease area will remain intact.

  
**Arun K. Das; B.E., F.C.C., H.T.M.**  
**R.Q.P./KOL/353/2008/A**



48

**AIR QUALITY MANAGEMENT**

Ambient air quality has been monitored by us and external agency. For baseline study, in each season monitoring will be carried out on two days in a week with 24-hourly samples being collected on each day in future as per the norms laid down by MOEF & CC. Emission of dust due to movement of vehicles and machineries will produce impact on air. As such there is no need for prevention of pollution of Air quality except sprinkling of water on haul road etc. in dry season.

**WASTE MANAGEMENT**

There is no generation of waste during mining operation, therefore, no provision of stock yard is proposed. The entire mineral produced is useable.

**TOPSOIL MANAGEMENT**

There is no generation of topsoil.

**TAILING DAM MANAGEMENT**

Not Applicable.

**INFRASTRUCTURE**

The Applicant will construct the mobile office cum attendance room and first aid center, workshop as per the site selection. A rest shelter will be provided near working quarry. Provision of potable water will be made available in the shelters.

**DISPOSAL OF MINING MACHINERY**

Not Applicable

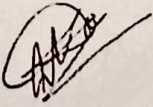
**SAFETY & SECURITY**

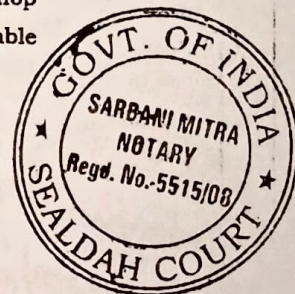
D.G.M.S. approved Safety shoes and helmets are being provided to the all workmen. During proposed plan period there is no proposal to close the mine. Security guards are engaged for security.

**DISASTER MANAGEMENT AND RISK ASSESSMENT**

High risk factors such as landslide, subsidence flood, fire, tailing dam failure etc are not encountered nor anticipated during proposed five years plan period. As such, emergency plan for quick evnucntion, protective measures are not proposed. Also, no local habitant exists as the working area is far away from the locality.

20

  
Arun K. Das; B.E., F.C.C., H.T.M.  
R.Q.P./KOL/353/2008/A



49

**CARE AND MAINTENANCE DURING TEMPORARY DISCONTINUANCE**

Due to unforeseen reason the mine will be a closed temporarily then proper care of workers and staffs will be taken. Temporary discontinuance notice in the prescribed form will be sent to the concerned authority of D.G.M.S., concerned State Government and concerned Labour Department within the stipulated time. Security guards to take care of the infrastructure shall be kept under the roll of the management in case of any temporary discontinuation.

**ECONOMIC REPERCUSSIONS OF CLOSURE OF MINE AND MANPOWER RETRENCHMENTS**

At this stage there will be no manpower retrenchment etc. in the area, hence, no proposal for these have been discussed.

**NUMBER OF LOCAL RESIDENTS EMPLOYED IN THE MINE, STATUS OF THE CONTINUATION FAMILY OCCUPATION AND SCOPE OF JOINING THE OCCUPATION BACK.**

This project operation will provide livelihood to the poorest section of the society. It provides employment to the people residing in vicinity directly or indirectly by the project.

**COMPENSATION GIVEN OR TO BE GIVEN TO THE EMPLOYEES CONNECTING WITH SUSTENANCE OF HIMSELF AND THEIR FAMILY MEMBERS.**

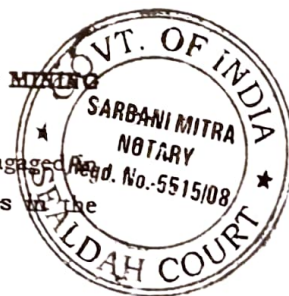
Not Applicable

**SATELLITE OCCUPATIONS CONNECTED TO THE MINING INDUSTRY - NUMBER OF PERSONS ENGAGED THEREIN - CONTINUANCE OF SUCH BUSINESS AFTER MINE CLOSES.**

Not Applicable

**CONTINUED ENGAGEMENT OF EMPLOYEES IN THE REHABILITATED STATUS OF MINING LEASE AREA AND ANY OTHER REMNANT ACTIVITIES**


The Applicant will habitate a large area and more people of the local residents are engaged in the cultivation. Moreover the company will organize community development programmes in the nearby villages and more people will be benefited by these programmes.

**ENVISAGED REPERCUSSIONS ON THE EXPECTATION OF THE SOCIETY AROUND DUE TO CLOSURE OF MINE**

Not Applicable.

**TIME SCHEDULING FOR ABANDONMENT**

Not Applicable.

  
Arun K. Das; B.E., F.C.C., H.T.M.  
R.Q.P./KOL/353/2008/A



50

**ABANDONMENT COST**

Not Applicable.

**FINANCIAL ASSURANCE**

The financial assurance will be submitted as per the rule to the concerned authority in the form of bank guarantee before the execution of the lease.

**12. Plans and Sections:** Plans are annexed as mentioned below:-

Plate-1: Mining Lease Plan on Mouza Sheet

Plate-2: Key Plan

Plate-3: Location Plan (Google)

Plate-4: Surface Plan and Sections

Plate-5: Surface Topographic Plan, Geological Plan and Sections

Plate-6: Year-wise development Plan

Plate-7: Composite Plan and Sections showing pit layouts, stacks of minerals and waste, etc.

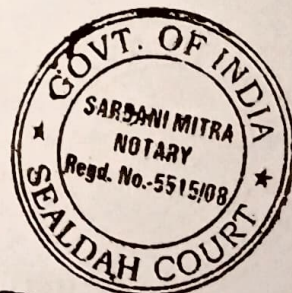
( Mine Closure Plan)

Plate-8: Conceptual Mining Plan

Plate-9: Environmental Plan

Plate-10: Location of the Project Site

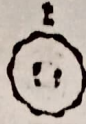
Arun K. Das; B.E., F.C.C., H.T.M.  
R.Q.P./KOL/353/2008/A



This Mining Plan is approved  
Subject to compliance with the  
guidelines of MCEFC, Govt and  
provisions of WBMMC Rules, 2018

APPROVED

Joydeb Das  
27/10/2021  
(Joydeb Das)  
Chief Mining Officer  
Govt. of West Bengal



51

GOVERNMENT OF WEST BENGAL  
OFFICE OF THE DISTRICT LAND AND LAND REFORMS OFFICER  
PURBA BARDHAMAN

INDIA BARDHAMAN PIN CODE 741001  
Phone No. 0342-2530641 Fax no. 0342-2531148 e-mail: dlrobarbdwn@gmail.com

Sl. No. 467 MM/2021

Dated Bardhaman the 08/06/2021

anshu Santra,  
PO, Fklakhi,  
Bardhaman-713427

Sub: Extension of validity of Lol issued vide memo no. 304/1287/ Auction-  
17 MM/18, Dated- 26.11.2018.

Ref: His prayer dated 04.06.2021.

In reference to the above noted matter and in connection with his prayer mentioned above  
inform him that after due consideration the validity of the previously issued Lol is hereby  
extended for six months. The Lol shall remain valid for a period of six months from the date of  
issuance of this letter.

Therefore he is requested to complete all the formalities including payment of  
fees due in this regard within the stipulated time frame.

Additional District Magistrate  
And  
District Land & Land Reforms Officer  
Purba Bardhaman



Dated, Bardhaman the 08/06/2021

Sl. No. 467 MM/2021

Secretary to the Govt. of W.B, Department of Large Industries and Enterprises, 4  
Sector-1, Salt Lake Station, Kolkata-700016  
The Mining Officer, Court Road, Asansol, Paschim Bardhaman  
The L & R O, Bardhaman-II, Purba Bardhaman  
The District Magistrate, Purba Bardhaman for kind appraisal of the District  
Magistrate, Purba Bardhaman.

Additional District Magistrate  
And  
District Land & Land Reforms Officer  
Purba Bardhaman



**GOVERNMENT OF WEST BENGAL**  
**OFFICE OF THE DISTRICT LAND & LAND REFORMS OFFICER**  
**PURBA BARDHAMAN**

P.O. RAJBATI, BARDHAMAN. PIN CODE: 713104  
 Phone no.0342-2530641 / Fax no.0342-2533348/e-mail: [dloburdwan@gmail.com](mailto:dloburdwan@gmail.com)

Mo. No.: 304/1287 / AUCTION 17/MM/18

Dated: 26/11/2018

HIMANSHU SANTRA  
 AGARI, EKLAKHI  
 ROHAMAN - 713427

Letter of Intent (LOI) with reference to e-auction bearing ID No. 2017\_DMBUW\_676 conducted on 02/08/2017 for grant of mining lease for sand in sand block BURDWAN-KALINAGAR/181(P), 205(P)/F located in plot No.s 181(P), 205(P) in Mouza- KALINAGAR J.L. No. 160, P.S. MADHABDIHI, District Purba Bardhaman over an area of 6.04 acres (2.44 hectares).

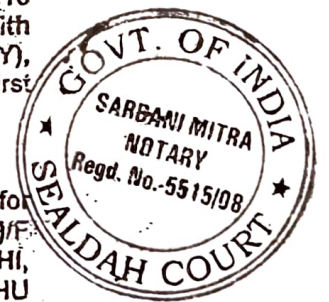
Background

The District Committee for Competitive Bidding of Minor Minerals (henceforth the District Committee) Purba Bardhaman, pursuant to rules 38 and 41 of the West Bengal Minor Minerals Auction Rules, 2016 and the West Bengal Minor Minerals (Auction) Rules, 2016 (hereinafter referred to as the Auction Rules) issued notice inviting tender dated 19/07/2017 to commence the e-auction process for grant of mining lease for sand in respect of sand block BURDWAN-II/KALINAGAR/181(P), 205(P)/F located in plot No.s 181(P), 205(P) in Mouza- KALINAGAR J.L. No. 160, P.S. MADHABDIHI, District Purba Bardhaman over an area of 6.04 acres ( 2.44 hectares). The e-auction process was conducted in accordance with the said Rules and also the tender document for the said sand block was duly published in Government's eprocurement portal as per extant rules and HIMANSHU SANTRA has been declared as successful bidder under Rule 9 (8) of the said Auction Rules.

As required under Rule 10(1) of the said Auction Rules, HIMANSHU SANTRA has made payment of Rs. 900500/- (NINE LAKH SIX HUNDRED ONLY), through GRN: 19-201718-007855641-2 (SBI) dated 13.09.17, Rs. 1000000 (TEN LAKH) through GRN : 19-201718-010528180-2 (SBI) , dated 14.11.17, Rs. 600000 (SIX LAKH) through GRN : 19-201819-026720825-2 (ICICI), dated-27.07.18 and Rs. 250000 (TWO LAKH SIXTY THOUSAND) through GRN: 19-201819-027060840-2 along with Rs. 241600.00/- (TWO LAKH FOURTY ONE THOUSAND SIX HUNDRED ONLY), through DRAFT NO: 005302 (CBC) dated 26/07/2017, towards one-third of the bid amount as first payment.

Letter of Intent

Accordingly, pursuant to Rule 10 (3) of the said auction Rules, this letter of intent is hereby issued for grant of mining lease for sand in respect of sand block BURDWAN-II/KALINAGAR/181(P), 205(P)/F located in plot No.s 181(P), 205(P) in Mouza- KALINAGAR J.L. No. 160, P.S. MADHABDIHI, District Purba Bardhaman over an area of 6.04 acres ( 2.44 hectares) in favour of HIMANSHU SANTRA for a period of 5 (five) years subject to the following terms and conditions:



58

### Terms and Conditions

The letter of intent and subsequent grant of aforementioned mining lease shall be subject to the provisions of the MMDR Act, 1957, West Bengal Minor Minerals Concession Rules, 2016 and West Bengal Minor Minerals (Auction) Rules, 2016 as amended from time to time and HIMANSHU SANTRA shall be granted the mining lease only upon satisfactory completion of the requirements stipulated in the said Rules.

The balance amount of bid money shall be payable in three instalments with a gap of maximum 45 days each from the date of 1st instalment (Sub rule (2) of Rule 10 of auction rules).

HIMANSHU SANTRA (henceforth the successful bidder) shall furnish a Mining Plan along with the Closure Plan as per model format issued by the Commerce and Industries Department under No. 420-CIO/MIN/GEN-MIS/16/2016(PT.) dated 28/07/2016, duly approved by the competent authority within one month from the date of issue of the Letter of Intent (LoI).

The successful bidder shall furnish Financial Assurance amounting Rs. 50000 (FIFTY THOUSAND INR) in any of the forms mentioned under Rule 18(2) of the West Bengal Minor Minerals Concession Rules, 2016 before execution of the deed of lease.

The successful bidder shall furnish performance security, being 10% of the bid amount in the form of bank guarantee before execution of the deed of lease mentioned under Rule 11 of the West Bengal Minor Minerals Auction Rules, 2016.

The successful bidder shall submit Environmental Clearance (E.C.) in respect of the above mentioned sand block duly issued by District Level Environment Impact Assessment Authority (DLEIA) or State Level Environment Impact Assessment Authority (SEIAA) or Ministry of Environment Forests & Climate Change (MoEF&CC) as the case may be as per Environment Impact Assessment Notification, 2006, as amended.

The successful bidder shall also obtain all other consents, approval, no-objections and the Eke as required under applicable laws for execution of deed of lease.

The successful bidder shall be bound to follow the guidelines stipulated in the Sustainable Sand Mining Management Guidelines, 2016 issued by the Ministry of Environment, Forest and Climate Change, Government of India for undertaking mining operation in the concerned sand block after completion of the duty executed mining lease.

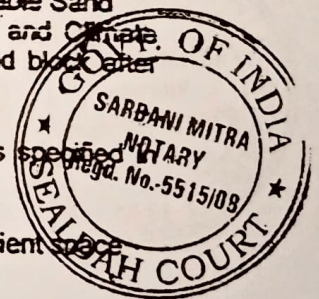
The successful bidder have to furnish a Draft Mining Lease Deed in the format as specified in Form D of the West Bengal Minor Minerals Concession Rules, 2016.

The Draft Mining Lease Deed should be prepared in durable papers neatly and sufficient copies should be kept in between two lines in order to permit, if necessary, correction therein.

The Deed of Lease, after execution, shall be registered by the successful bidder at his own cost and mining operation should be started before registration of the Deed.

The successful bidder shall have to incorporate all the conditions as mentioned in the West Bengal Minor Minerals Concession Rules, 2016 in the Draft Lease Deed.

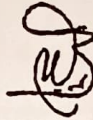
The successful bidder shall have to comply with all the statutory requirements before presenting the Deed of Lease for execution before the appropriate authority.



54

14. The successful bidder shall have to collect corner coordinate of mine block for preparation of mine plan from the office of the under signed.

This Letter of Intent (Loi) shall remain valid for a period of one month from the date of its issuance and if the successful bidder is unable to fulfil all the above conditions within this period he may submit an application addressed to the District Magistrate for extension of time. Such application may be submitted to this end for due processing. The District Magistrate being the Chairperson of the District Committee, reserves the right to extend the validity of Letter of Intent (Loi) for such reasonable period as it deemed fit.



Addl. District Magistrate  
&  
District Land & Land Reforms Officer  
Purba Bardhaman



Memo No: 304/1287(1-4)

/AUCTION 17/MM/18

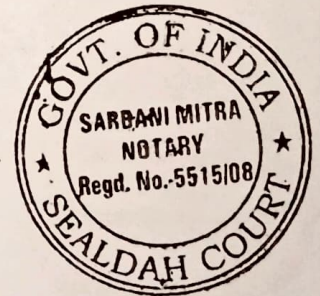
Date: 26/11/2018

Copy forwarded for information to:

1. The District Magistrate & Collector, Purba Bardhaman, West Bengal
2. The Jt. Secretary to the Govt. of W.B., Department of Large Industries and Enterprises, 4 A.N. Tegore Sarani, Camac Street, Kolkata-700016
3. The Chief Mining Officer, Court Road, Asansol, Paschim Bardhaman.
4. The B.L. & L.R.O. Bardhaman - II.



Addl. District Magistrate  
&  
District Land & Land Reforms Officer  
Purba Bardhaman



56

0-32

OFFICE OF THE RAINA-II PANCHAYAT SAMITY  
MADHABDIHI : BURDWAN.

(Licence for carrying Trade under the section 166(2) of the West Bengal Panchayat Act-1973) including dangerous & offensive.

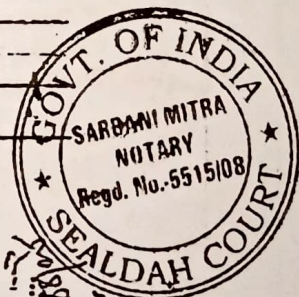
sri Himanshu Santra, s/o Late Gangaram Santra  
of village Moniari P.O. Uchalan P.S. Madhabdihi  
Dist. Burdwan is hereby permitted to carry on the business mentioned  
below upto 31/3/2009 (Year 2008-2009).  
Calendar Year.

- 1. Licence No. :- Bulchandrapur-H-1/208-2002,
- 2. Name of the Licence Holder: Himanshu Santra
- 3. Address: a) Village Moniari P.O. Uchalan  
Dist. Burdwan.
- 4. Address of the Trade/  
Business Point. :- New Bulchandrapur Bazar,  
Dist. Burdwan.
- 5. Description of Trade of  
Business :- Paddy Business.

Boundaries of the place  
Raina-II P.S. Trade/Business. : East Valant Land  
West P.W.D. Road  
North House  
South House

Mouja Bulchandrapur Kh.No. 905  
Plot No. 1342 to 144

Dist. Madhabdihi, Burdwan 20/7  
Renewed upto 31-3-2018  
Executive Officer  
Raina-II Panchayat Samity.



This licence is valid till the licence adds by all the  
Rules and regulations prescribed under the relevent sections  
of the Panchayat Act-1973 amended from time to time.

The licence is valid subject to the condition that the  
licencee obtains no objection from Fire services. Without  
No-objection from fire services this licence though issued  
has no validity. 31/3/2012

Executive Officer  
Raina-II P.S.

Renewed upto  
Executive Officer  
Raina-II P.S.

31/3/2010  
Executive Officer  
Raina-II P.S.


Renewed upto 31-3-2014  
Executive Officer  
Raina-II P.S.

Renewed upto 31-3-2010  
Executive Officer  
Raina-II P.S.


Renewed upto 31-3-2015  
Executive Officer  
Raina-II P.S.

Renewed upto 31-3-2015  
Executive Officer  
Raina-II P.S.

57

  
**ভারতের নির্বাচন কমিশন**  
 भारत का चयन आयोग  
**ELECTION COMMISSION OF INDIA**  
**IDENTITY CARD**

WB/39/272/417480



নির্বাচক নাম : হিমালয় সান্ত্রা  
 Elector's Name : Himanshu Santra  
 পিতার নাম : গঙ্গারাম সান্ত্রা  
 Father's Name : Gaganram Santra  
 পিতা/স্বামী : পূ/ M  
 জন্ম তারিখ : 15/02/1967

WB/39/272/417480

ঠিকানা:  
 ময়ূর গঙ্গারামী, মাদহাডিহী, মাদহাডিহী, বর্ধমান-713427

Address:  
 SAMAGRA MONIARI, MONIARI,  
 MADHABDIHI, BURDWAN-713427

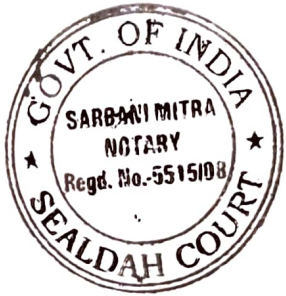
*[Signature]*

Date: 12/07/2014

261-রায়না (কনগিগী জাতি) নির্বাচন কেন্দ্রের নির্বাচন  
 নিয়ন্ত্রক অধিবর্তনের স্বাক্ষরের অনুলিপি  
 Facsimile Signature of the Electoral  
 Registration Officer for  
 261-Raina (SC) Constituency

কোনো পরিবর্তন হলে মূল ডেপুটি রেজিস্ট্রারের কাছে যোগাযোগ করা হবে এবং  
 সংশ্লিষ্ট মূল রোল পরিবর্তনের পরামর্শ লইয়া নির্বাচন রোল  
 পরিবর্তনের আবেদন করা হবে।

In case of change in address mention this Card No  
 in the relevant Form for including your name in the  
 roll at the changed address and to obtain the card  
 with same number.



*Himanshu Santra*

58

आयकर विभाग  
INCOME TAX DEPARTMENT

भारत सरकार  
GOVT. OF INDIA



स्थायी लेखा संख्या कार्ड  
Permanent Account Number Card

BPIPS1481R

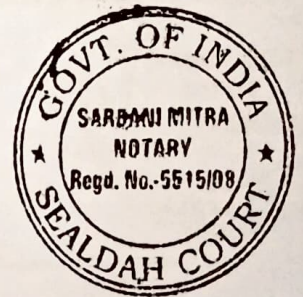
नाम / Name  
HIMANSHU SANTRA

पिता का नाम / Father's Name  
GANGARAM SANTRA

जन्म की तिथि / Date of Birth  
15/02/1967

*Himanshu santra*  
हस्ताक्षर / Signature

27/12/2017



*Himanshu santra*



आधार

भारत सरकार  
 Identification Authority of India  
 Government of India  
 Enrollment No.: 1058/21121/46816

Manishu Santra  
 Manari  
 Ekdakhi  
 West Bengal 713427



ML633287268FT



आधार क्रमांक / Your Aadhaar No. :

**104 0160 5273**

आम आदमी का अधिकार

भारत सरकार  
 Government of India

Himanshu Santra  
 Father : GANGARAM SANTRA  
 DOB : 15/02/1987  
 Male



8004 0160 5273

आम आदमी का अधिकार



Government of India



AADHAAR

सूचना

- आधार पहचान का प्रमाण है, नागरिकता का नहीं।
- पहचान का प्रमाण ऑनलाइन प्रमाणीकरण द्वारा प्राप्त करें।

INFORMATION

- Aadhaar is proof of identity, not of citizenship .
- To establish identity, authenticate online .

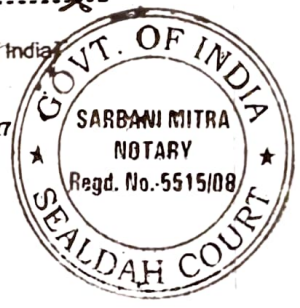
- आधार देश भर में मान्य है।
- आधार भविष्य में सरकारी और गैर-सरकारी सेवाओं का लाभ उठाने में उपयोगी होगा।
- Aadhaar is valid throughout the country .
- Aadhaar will be helpful in availing Government and Non-Government services in future .



आधार

भारत सरकार  
 Unique Identification Authority of India

Address:  
 Maniari, Bardhaman, Ekdakhi, West Bengal, 713427



8004 0160 5273



1800 300 1947



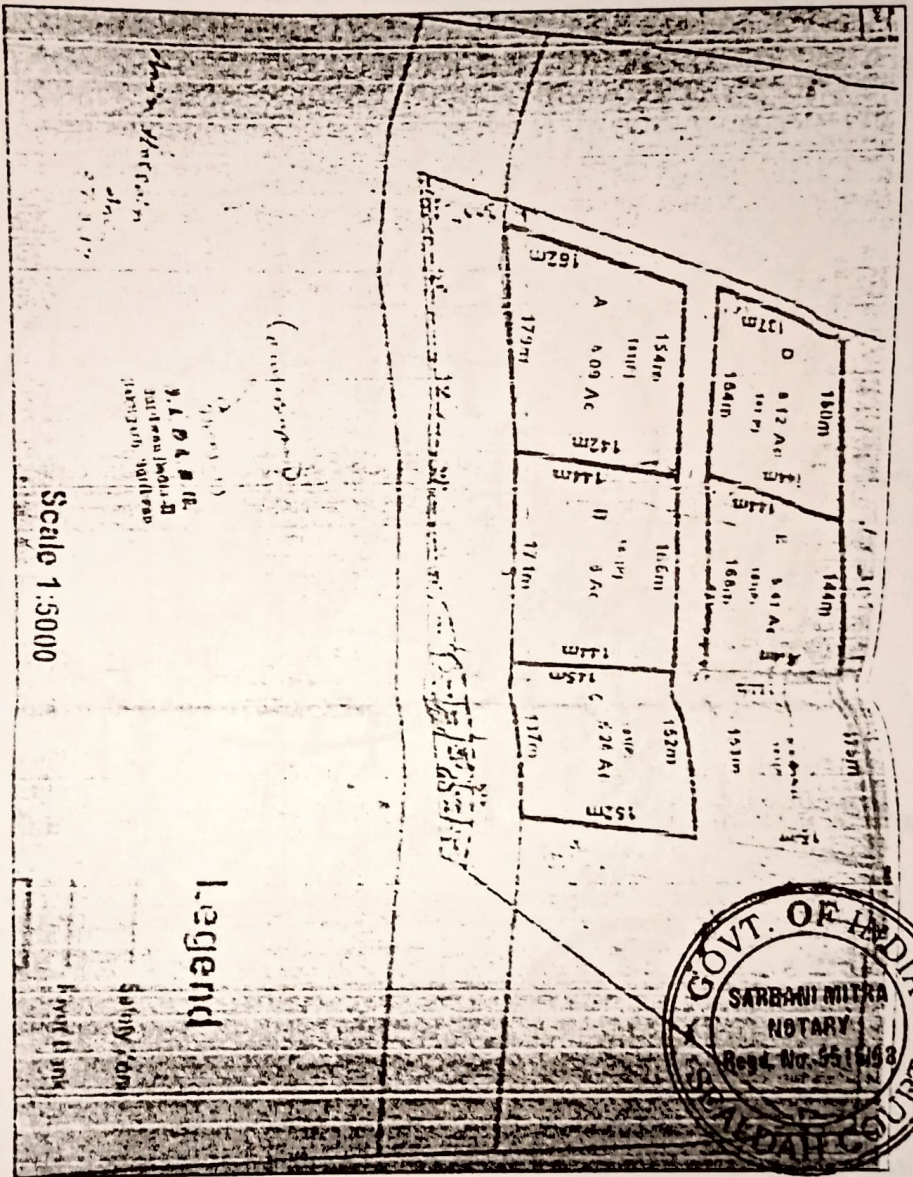
help@uidai.gov.in



www.uidai.gov.in

Himanshu Santra

60



Scale 1:5000

Legend

**PLATE-1**

**SCALE:- 1:3960**

| HIMANSHU SANTRA     |              |
|---------------------|--------------|
| GPS COORDINATE      |              |
| POINT               | LONGITUDE    |
| A                   | 87°57'11.56" |
| B                   | 87°57'16.93" |
| C                   | 87°57'18.06" |
| D                   | 87°57'11.91" |
| P/T CENTER POSITION | 87°57'14.56" |

AREA:- 6.04 ACRE (2.41 HECTARES)

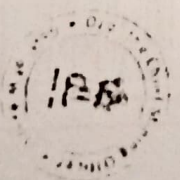
**INDEX**

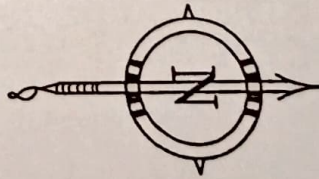
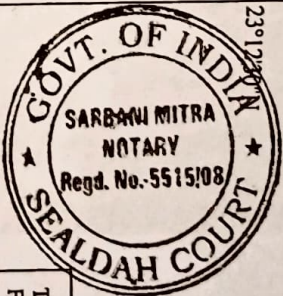
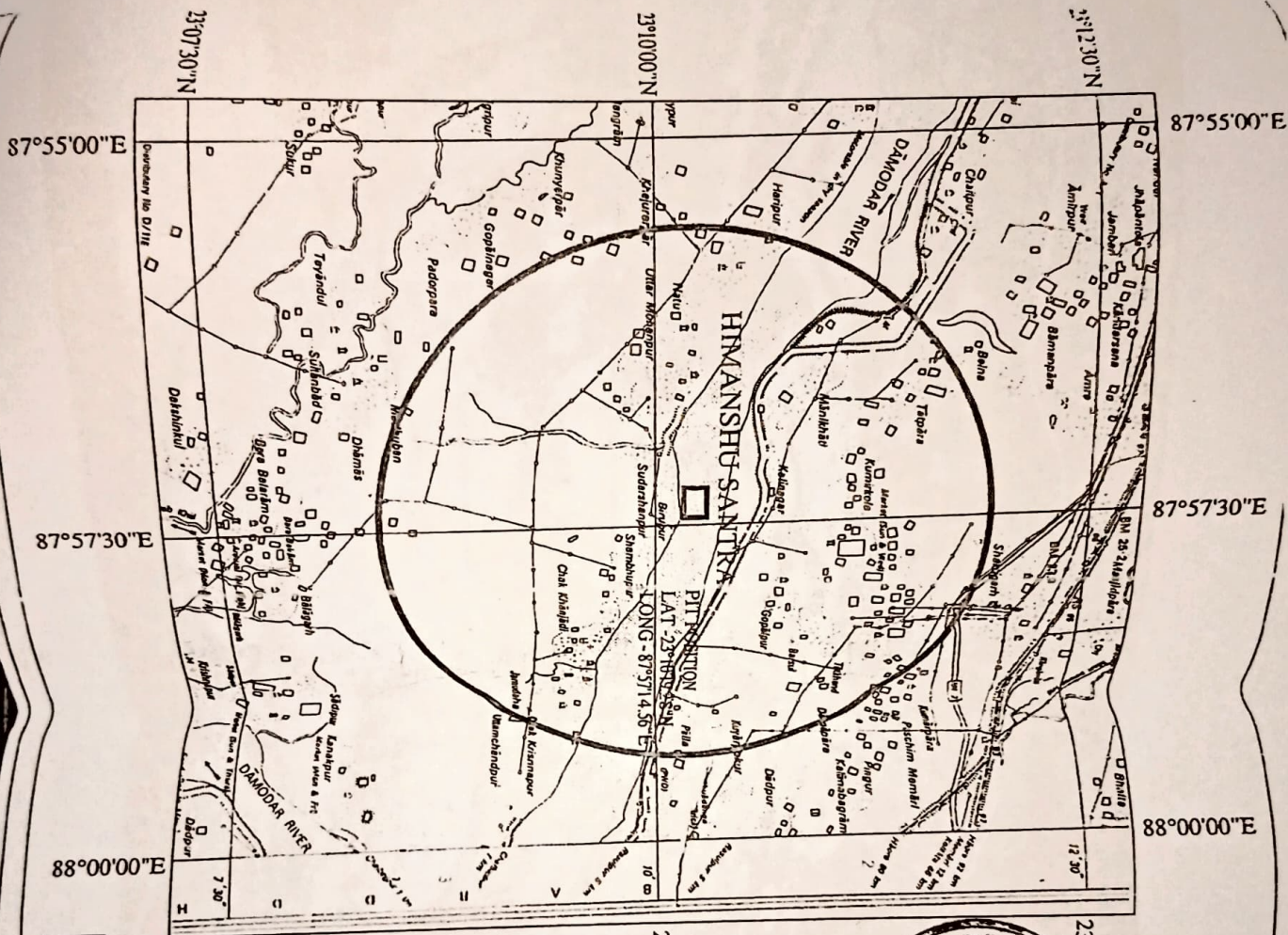
|               |  |
|---------------|--|
| P/T BOUNDARY  |  |
| MINI BOUNDARY |  |

MOUZA MAP

HIMANSHU SANTRA  
 MOUZA - KALINAGUR, JL NO-160  
 P.S. - MADHABDIHI,  
 DISTRICT - PURBA BARDHAMAN  
 WEST BENGAL  
 PLOT NOS - 181(D), 205(D)

PREPARED BY:-  
 ARUN K DAS  
 RQP/KOL/353/2008





AREA: 6.04 ACRE (2.44 HECTARS)

SCALE: 1:50,000

TOPO SHEET  
F45D16 (73M/16)



INDEX

PROJECT SITE

5 KM RUPPER

| POINT               | LATITUDE     | LONGITUDE    |
|---------------------|--------------|--------------|
| A                   | 23°10'17.05" | 87°57'11.56" |
| B                   | 23°10'17.05" | 87°57'16.93" |
| C                   | 23°10'21.84" | 87°57'18.06" |
| D                   | 23°10'21.74" | 87°57'11.91" |
| PIT CENTER POSITION | 23°10'19.28" | 87°57'14.56" |

23°07'30"N

23°10'00"N

PLATE-2

TOPO SHEET MAP  
HIMANSHU SANTRA  
KOOZA - KALINGA, T. NO. 160  
P.S. MADHUBDIUI,  
DISTRICT - PURBA BARRHAMAN  
WEST BENGAL  
PLOT NOS. - 181(P, 204(P)

PREPARED BY:-  
AKUN K DAS  
KOPKOL/31/2008 R.P./KOL/353/2008/A

Arun K. Das, B.E., F.C.C., I.T.M.

62

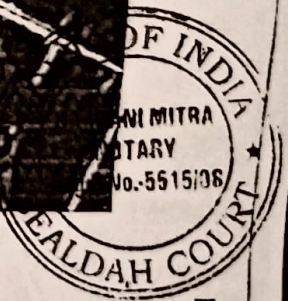


PLATE-3

SCALE:- 1:5000

AREA:- 6.04 ACRE (2.44 HECTARS)

INDEX

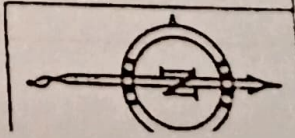
- PT. BOUNDARY
- MINE BOUNDARY
- SPRING CIRCLE

| HIMANSU SANTRA      |              |              |
|---------------------|--------------|--------------|
| GPS COORDINATE      |              |              |
| POINT               | LATITUDE     | LONGITUDE    |
| A                   | 21°10'17.06" | 87°57'11.56" |
| B                   | 21°10'17.05" | 87°57'16.93" |
| C                   | 21°10'21.84" | 87°57'18.06" |
| D                   | 21°10'21.74" | 87°57'11.91" |
| PT. CENTER POSITION | 21°10'19.28" | 87°57'14.56" |

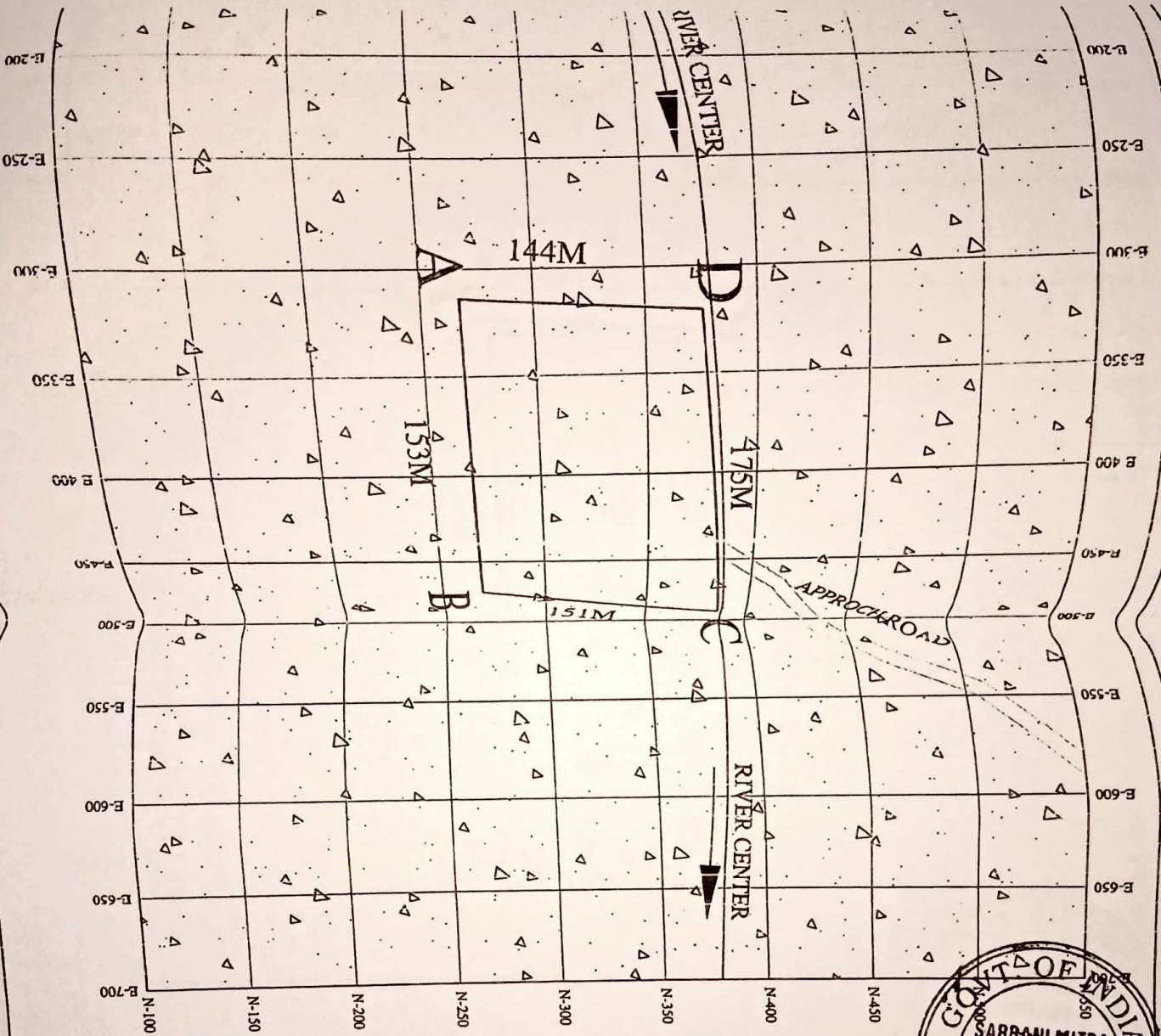
GOOGLE MAP

HIMANSU SANTRA  
 MOUZA - KALINAGAR, JL. NO. 160  
 P.S. - MADHULABDIHI,  
 DISTRICT - PURBA BARISHAL  
 WEST BENGAL  
 PLOT NOS. - 181(D), 20(D)

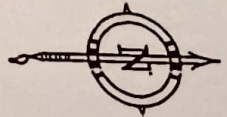
PREPARED BY:- ARUN K DAS  
 ARUN K DAS  
 R.D. P/IKO/133/2009 A



63



GOVT. OF INDIA  
 SARBANI MITRA  
 NOTARY  
 Regd. No. 5515/08  
 SEALDAH COURT-4



AREA - 6.04 ACRE (2.44 HECTARES)

SCALE:- 1:2000

| HIMANSHU SANTRA<br>GPS COORDINATE |              |              |              |
|-----------------------------------|--------------|--------------|--------------|
| POINT                             | LATITUDE     | LONGITUDE    |              |
| A                                 | 23°10'17.06" | 87°57'11.54" |              |
| B                                 | 23°10'17.05" | 87°57'16.93" |              |
| C                                 | 23°10'21.84" | 87°57'18.06" |              |
| D                                 | 23°10'21.74" | 87°57'11.91" |              |
| RIT CENTER POSITION               |              | 23°10'19.28" | 87°57'14.56" |

INDEX

- LEASE BOUNDARY
- MINE BOUNDARY
- APPROACH ROAD
- RIVER CENTER LINE
- GRID LINE

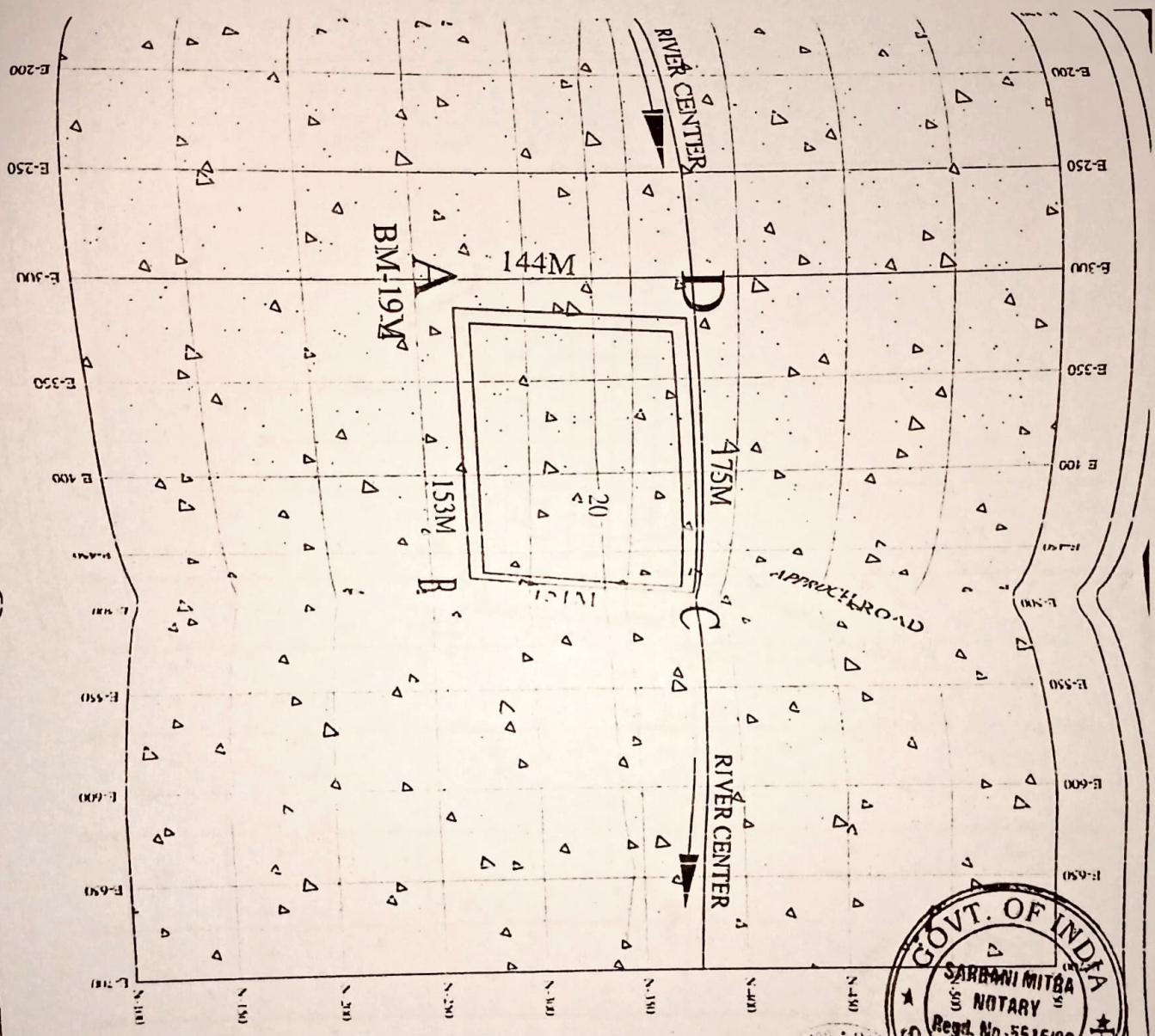
LEASE HOLD PLAN

HIMANSHU SANTRA  
 MOUZA - KALINGGAR, JL. N-160  
 P.S. - MADHABDIHI  
 DISTRICT - PURBA BANGALAYAN  
 WEST BENGAL  
 PLOT NOS - 181(F), 20(F)

PREPARED BY:-  
 ARUN K DAS  
 ROP/KOU/33/2008 R.D.P./KOU/33/2008/1A

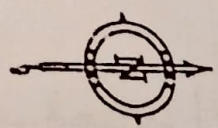
Arun K Das  
 F.C.C.

SA



GOVT. OF INDIA  
 SARANI MITRA  
 NOTARY  
 Regd. No. 5515/08  
 SEALDAH COURTS

PAGE-5



SCALE: 1:1000

AREA: 6.04 ACRE (2.44 HECTARE)

| POINT | COORDINATES       | HEIGHT | REMARKS        |
|-------|-------------------|--------|----------------|
| A     | N 144.00 E 200.00 | 144.00 | Corner of plot |
| B     | N 144.00 E 353.00 | 153.00 | Corner of plot |
| C     | N 144.00 E 506.00 | 144.00 | Corner of plot |
| D     | N 144.00 E 659.00 | 153.00 | Corner of plot |

INDEX

|                  |  |
|------------------|--|
| LEVER POINT      |  |
| WIDE BENCH       |  |
| APPROXIMATE ROAD |  |
| APPROXIMATE ROAD |  |
| APPROXIMATE ROAD |  |
| APPROXIMATE ROAD |  |
| APPROXIMATE ROAD |  |
| APPROXIMATE ROAD |  |
| APPROXIMATE ROAD |  |

SURVEY PLAN

DEPARTMENT OF SURVEY  
 100/25, K. S. ROAD, 11, N. 100  
 P. S. SURVEY  
 DISTRICT, 17 RD & B. ROAD  
 SECT. 17, N. 100  
 SURVEY NO. 111/19-20-19  
 PREPARED BY  
 SURVEYOR  
 A. K. DAS, B. E., F. C. C.  
 NO. 100/25, K. S. ROAD, 11, N. 100

65

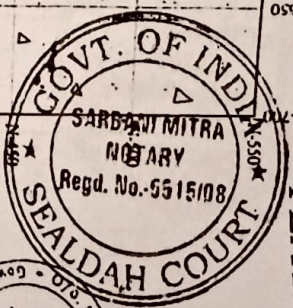
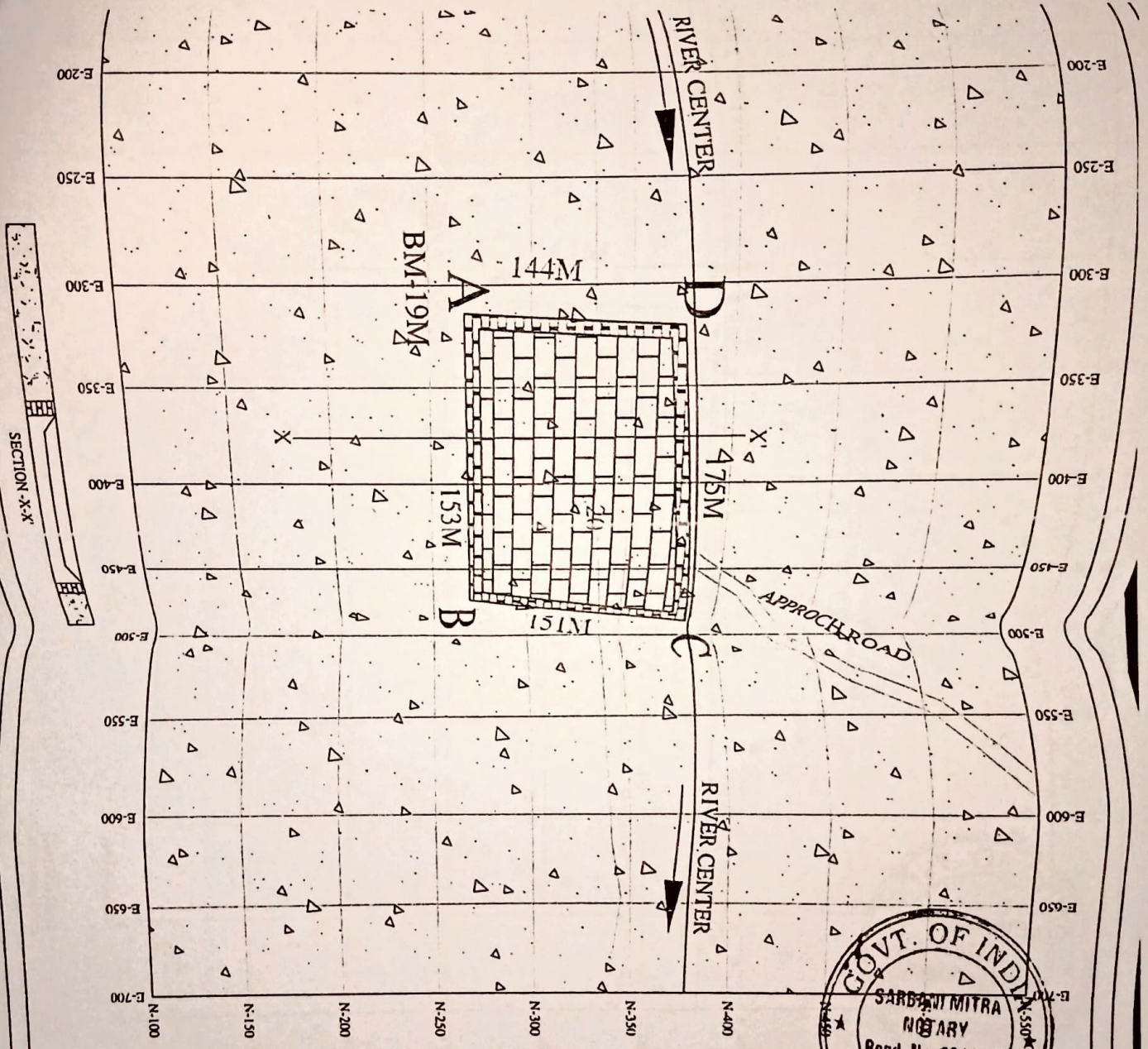
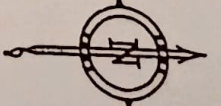


PLATE-6



SCALE:- 1:2000

AREA:- 6.04 ACRE (24.4 HECTARES)

| HIVANSHU SANTRA<br>GPS COORDINATE |           |           |           |
|-----------------------------------|-----------|-----------|-----------|
| POINT                             | EASTING   | NORTHING  | LONGITUDE |
| A                                 | 23100.726 | 873711.46 | 873711.46 |
| B                                 | 23101.728 | 873716.97 | 873716.97 |
| C                                 | 23102.244 | 873718.4  | 873718.4  |
| D                                 | 23102.721 | 873711.41 | 873711.41 |
| PIT POSITION                      | 23101.922 | 873714.46 | 873714.46 |

INDEX

- LEAVE BOUNDARY
- MINE BOUNDARY
- APPROACH ROAD
- RIVER CENTER LINE
- GRID LINE
- CONTOUR LINE
- 25M BARBER ZONE
- MUNING AREA

GENERAL PLAN

HIVANSHU SANTRA  
MOL. 23 - KALNAGAR, JL. NO-161  
P.S. MADHUPUR  
DISTRICT, PURBANGA  
WEST BENGAL  
PLOT NOS. - 181/1A, 2/1A  
PREPARED BY: Avun H. Das, B.E., F.C.T.  
ANIL K. DAS R.O. PIKOL/353/2008/A  
REG. NO. 351/2008

66

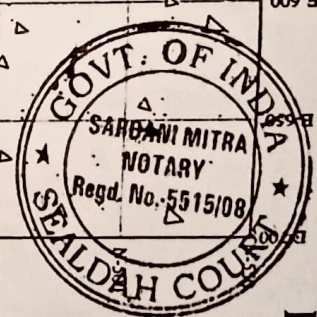
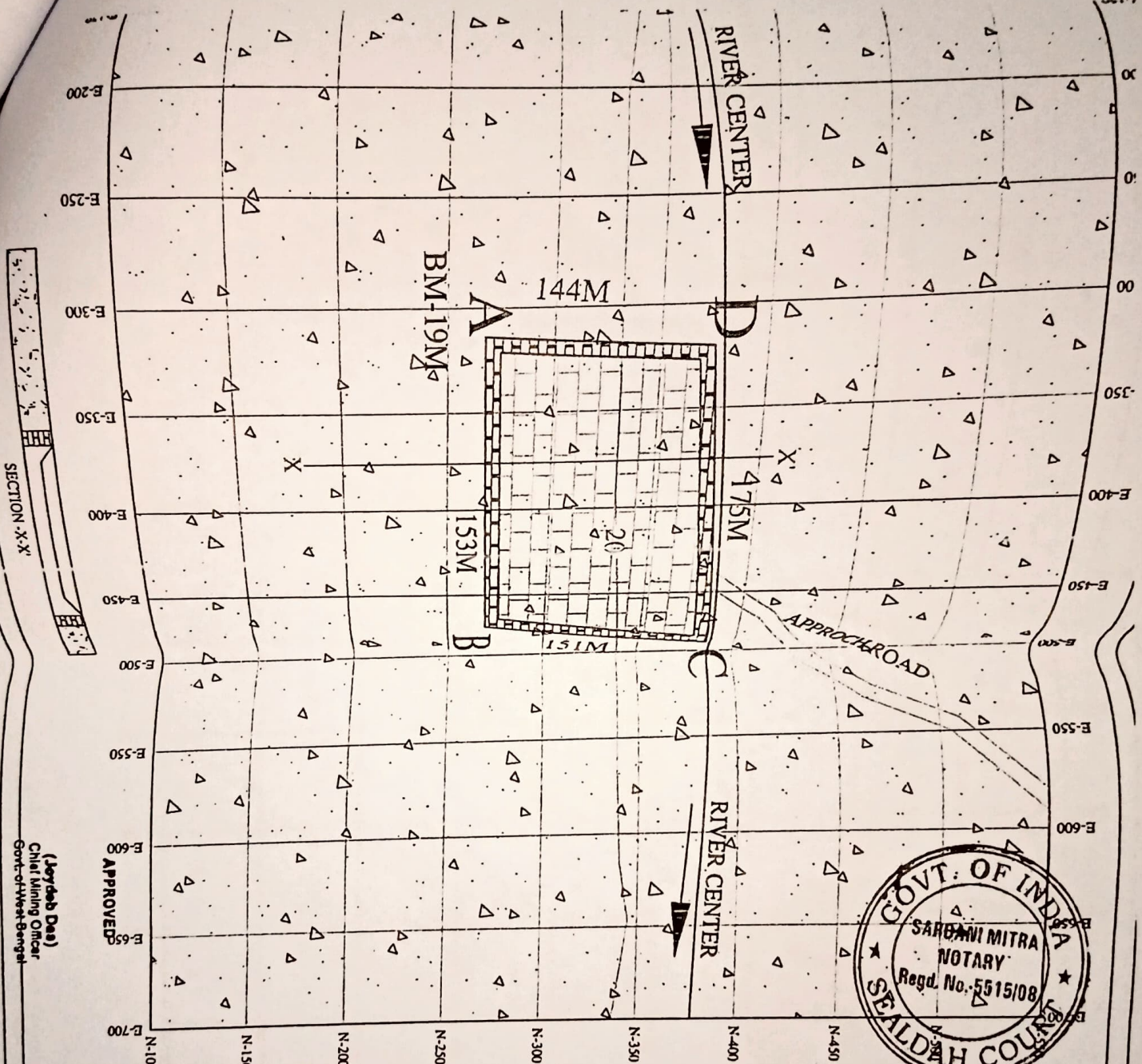
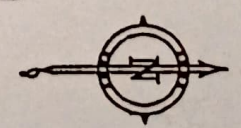


PLATE-7



SCALE: 1:2000

AREA: 604 ACRE (246 HECTARES)

| HIMANSHU SANTRA<br>GPS COORDINATE |              |              |  |
|-----------------------------------|--------------|--------------|--|
| POINT                             | LATITUDE     | LONGITUDE    |  |
| A                                 | 22°10'17.06" | 87°57'11.56" |  |
| B                                 | 22°10'17.95" | 87°57'18.91" |  |
| C                                 | 22°10'21.84" | 87°57'18.05" |  |
| D                                 | 22°10'21.74" | 87°57'11.91" |  |
| PT. CENTER POSITION               | 22°10'19.28" | 87°57'14.56" |  |

INDEX

|                   |       |
|-------------------|-------|
| LEASE BOUNDARY    | ————— |
| MINE BOUNDARY     | ————— |
| APPROACH ROAD     | ————— |
| RIVER CENTER LINE | ————— |
| GRID LINE         | ————— |
| CONTOUR LINE      | ————— |
| 35M BARRIER ZONE  | ————— |
| MINING AREA       | ————— |

WORKING PLAN AND SECTION

HIDANSHU SANTRA  
 NO. 2A - KALINAGAR, JL. NO-160  
 P.S. - MADHUBAD HI.  
 DISTRICT - PURBA BANGALAYAN  
 WEST BENGAL.  
 PLOT NOS - 1810A, 2010A

PREPARED BY: *[Signature]*  
 MANU K DAS  
 K. Das: B.E., F.C.C., H.T.M.  
 KPK/KOL/231200R, Q/P/KOL/35312008/A

(Joydeb Das)  
 Chief Mining Officer  
 Govt. of West Bengal

APPROVED

67

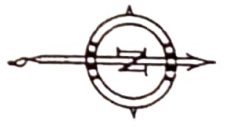
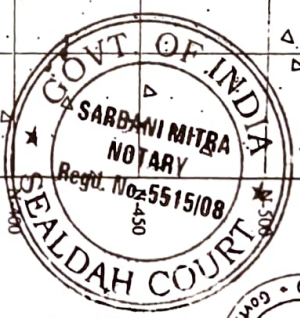
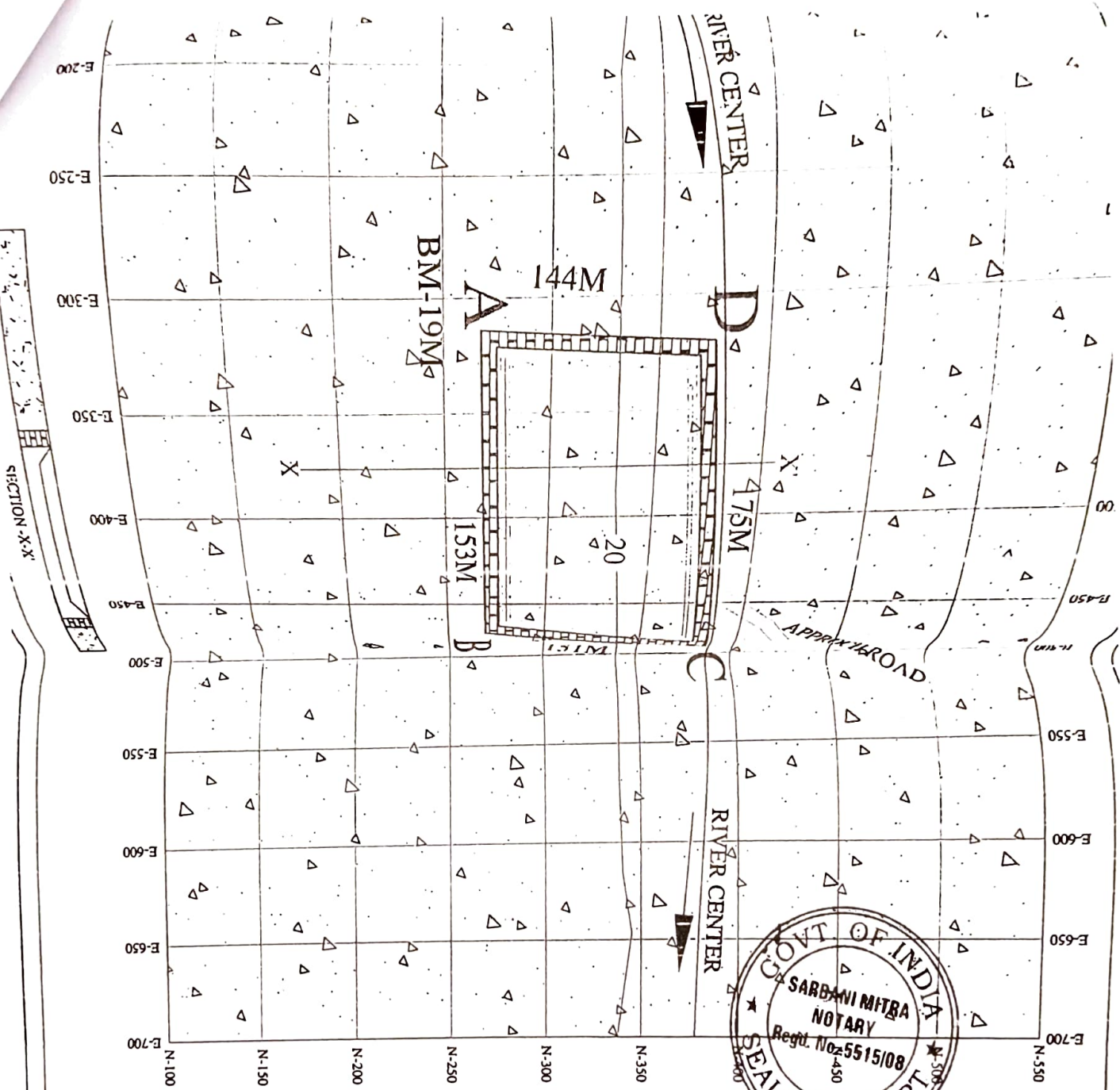


PLATE-8

AREA:- 6.04 ACRE (2.41 HECTARS)

SCALE:- 1:2000

| GPS COORDINATE      |             |
|---------------------|-------------|
| POINT               | LONGITUDE   |
| A                   | 2°10'17.06" |
| B                   | 2°10'17.05" |
| C                   | 2°10'21.84" |
| D                   | 2°10'21.74" |
| PIT CENTER POSITION | 2°10'19.28" |

INDEX

|                   |          |
|-------------------|----------|
| LEASE BOUNDARY    | [Symbol] |
| RIVER BOUNDARY    | [Symbol] |
| APPROACH ROAD     | [Symbol] |
| RIVER CENTER LINE | [Symbol] |
| GRID LINE         | [Symbol] |
| CONTOUR LINE      | [Symbol] |
| 7.5M BARRIER ZONE | [Symbol] |
| Mining Area       | [Symbol] |
| RIVER SAND        | [Symbol] |
| 1ST YEAR          | [Symbol] |
| 2ND YEAR          | [Symbol] |
| 3RD YEAR          | [Symbol] |
| 4TH YEAR          | [Symbol] |
| 5TH YEAR          | [Symbol] |
| BENCH             | [Symbol] |

PRODUCTION AND DEVELOPMENT PLAN

HIMANSHU SANTRA  
MOLLA LALINAGAR, JL. NO-160  
P.S. MADHUBHIL  
DISTRICT PURBIA BARAHAN  
WEST BENGAL  
PLOT NOS - 181/1, 2/1/1

PREPARED BY:- A. U. N. K. Das, B. E., F. C. C., H. T. M.,  
AKUN K DAS R Q P/KOL/353/2008/1  
RDP/KOL/353/2008

68

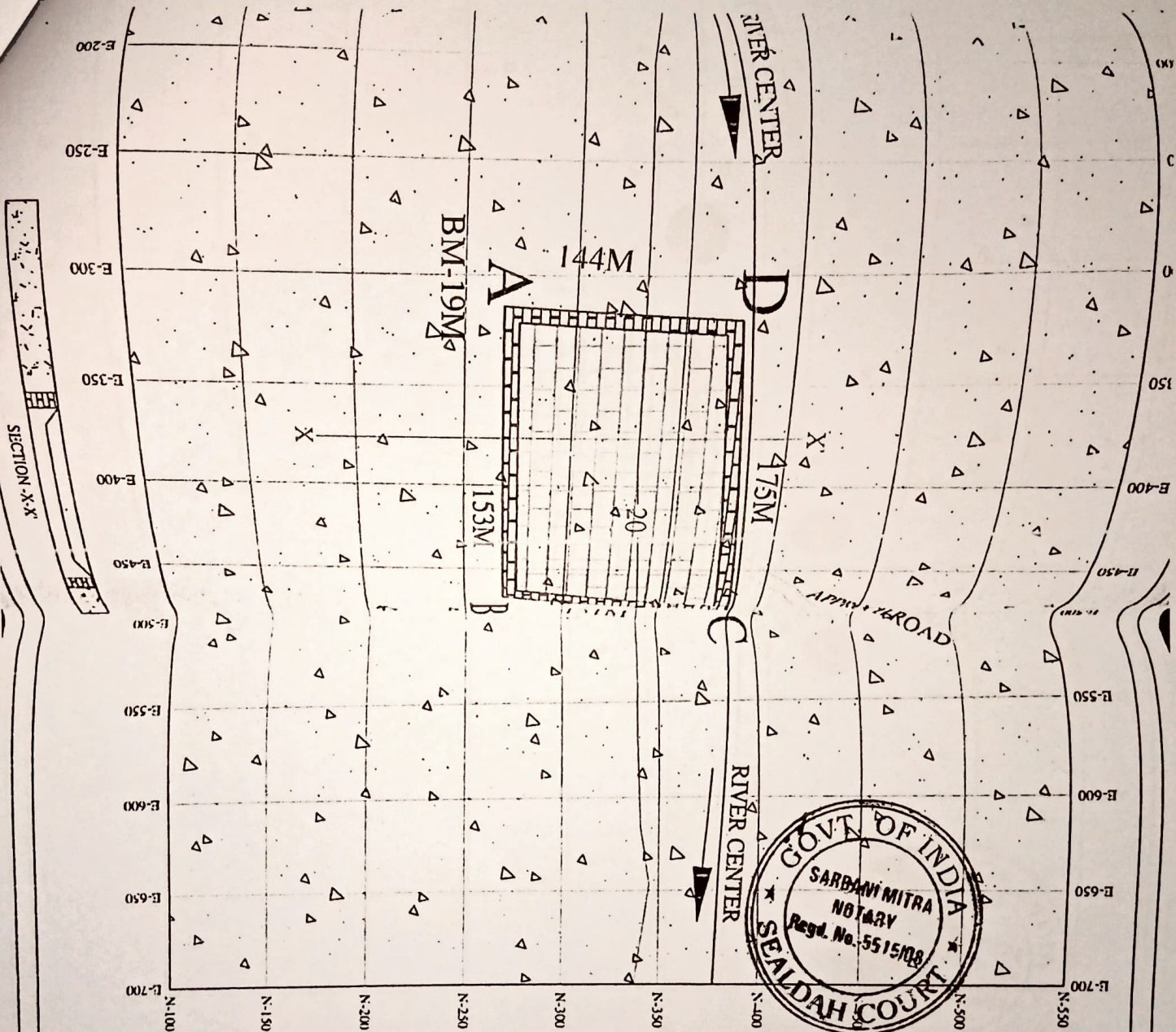
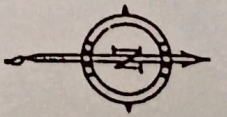


PLATE-9



SCALE:- 1:2000

AREA - 60.42 ACRES (2.44 HECTARES)

| POINT               | LATITUDE     | LONGITUDE    |
|---------------------|--------------|--------------|
| A                   | 23°10'1.00"  | 92°27'11.86" |
| B                   | 23°10'12.05" | 92°27'18.97" |
| C                   | 23°10'21.84" | 92°27'18.86" |
| D                   | 23°10'21.72" | 92°27'11.97" |
| PIE CENTER POSITION | 23°10'14.29" | 92°27'14.86" |

INDEX

|                   |  |
|-------------------|--|
| LEAVE BOUNDARY    |  |
| WINE B&L SURVEY   |  |
| APPROACH ROAD     |  |
| RIVER CENTER LINE |  |
| GRID LINE         |  |
| CONTROL LINE      |  |
| 7.5M BARRIER ZONE |  |
| SENSING AREA      |  |
| RIVER WAND        |  |

CONCEPTUAL PLAN

HIMANSHU SANYAL  
 73, NUDURDOL BE.  
 DISTRICT P. BARABANGAL  
 WEST BENGAL  
 PLOT NOS. 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

6

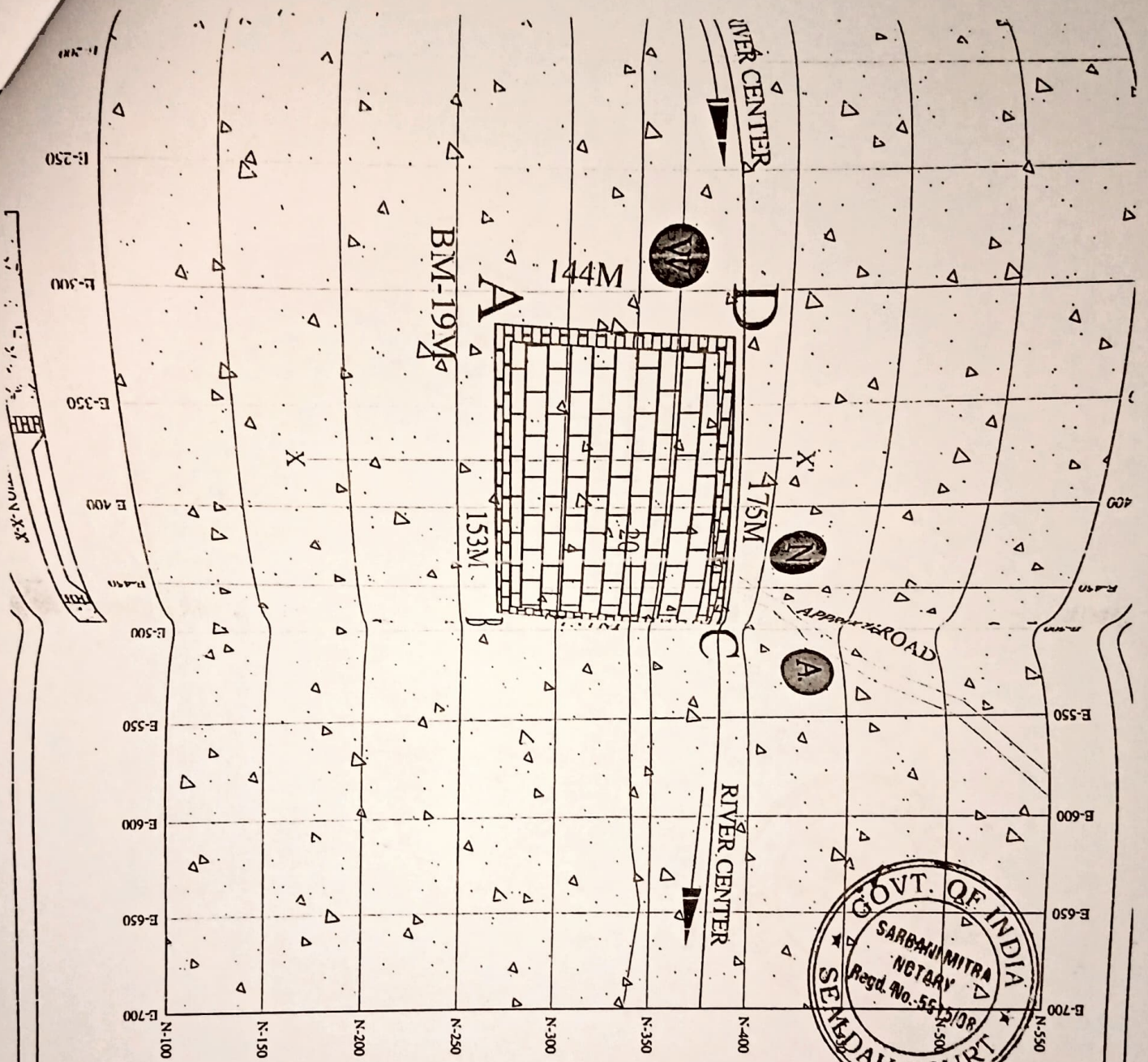
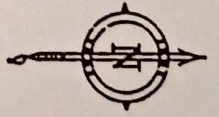


PLATE-10



SCALE:- 1:2000

AREA:- 6.04 ACRE (24.4 HECTARS)

| HDVANSHU SANTRA     |              |              |
|---------------------|--------------|--------------|
| POINT               | LATITUDE     | LONGITUDE    |
| A                   | 23°10'17.26" | 87°51'11.56" |
| B                   | 23°10'17.05" | 87°51'16.97" |
| C                   | 23°10'17.34" | 87°51'18.05" |
| D                   | 23°10'17.24" | 87°51'11.91" |
| PT. CENTER POSITION | 23°10'19.28" | 87°51'14.56" |

INDEX

|                          |  |
|--------------------------|--|
| LEASE BOUNDARY           |  |
| MINE BOUNDARY            |  |
| APPROACH ROAD            |  |
| RIVER CENTER LINE        |  |
| GRID LINE                |  |
| CONTROL LINE             |  |
| 75M BARBER ZONE          |  |
| MINE AREA                |  |
| RIVER SAND               |  |
| WATER MONITORING STATION |  |
| NOISE MONITORING STATION |  |
| AIR MONITORING STATION   |  |
| PLANTATION               |  |

ENVIRONMENTAL MANAGEMENT PLAN

HDVANSHU SANTRA  
 MO. 2A - LALUNAGAR, JL. NO. 160  
 P.S. - MADURAI, DISTRICT - TRIBAL BHAVAN  
 WEST BE. CAL.  
 PLOT NOS. - 18107, 20079

PREPARED BY: Avun K. Das, B.E., F.C.C., H.T.M.,  
 ARUN K DAS  
 ROPK/CL/31/2008 Q.P./ROU/353/2008/A



71



File No: EN/T-II-I/102/2024  
 Government of India  
 Ministry of Environment, Forest and Climate Change  
 (Issued by the State Environment Impact Assessment  
 Authority(SEIAA), WEST BENGAL)

\*\*\*



Dated 23/07/2024



To,

HIMANSHU SANTRA  
 Eklakhi, Raina II , PURBA BARDHAMAN, WEST BENGAL, , 713427  
 himanshumine2@gmail.com

Subject:

Grant of Terms of Reference under the provision of the EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Grant of Terms of Reference under the provision of the EIA Notification 2006-regarding in respect of project Kalinagar Sand Mine submitted to Ministry vide proposal number SIA/WB/MIN/476968/2024 dated 07/06/2024.

2. The particulars of the proposal are as below :

|   |                              |
|---|------------------------------|
| (i) TOR Identification No.                  | TO24B0107WB5202676N          |
| (ii) File No.                               | EN/T-II-I/102/2024           |
| (iii) Clearance Type                        | TOR                          |
| (iv) Category                               | BI                           |
| (v) Project/Activity Included Schedule No.  | 1(a) Mining of minerals      |
| (vii) Name of Project                       | Kalinagar Sand Mine          |
| (viii) Name of Company/Organization         | HIMANSHU SANTRA              |
| (ix) Location of Project (District, State)  | PURBA BARDHAMAN, WEST BENGAL |
| (x) Issuing Authority                       | SEIAA                        |
| (xii) Applicability of General Conditions   | no                           |
| (xiii) Applicability of Specific Conditions | no                           |



3. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-1(Part A and B) were submitted to the Ministry for an appraisal by the State Environment Impact Assessment Authority(SEIAA) in the Ministry under the provision of EIA notification 2006 and its subsequent amendments.

4. The above-mentioned proposal has been considered by State Environment Impact Assessment Authority(SEIAA) in the meeting held on 05/07/2024. The minutes of the meeting and all the Application and documents submitted [(viz. Form-I Part A, Part B, Part C EIA, EMP)] are available on PARIVESH portal which can be accessed by scanning the

72

QR Code above.

5. The SEIAA, in its meeting held on 05/07/2024, based on information & clarifications provided by the project proponent and after detailed deliberations recommended the proposal for grant of Terms of Reference under the provision of EIA Notification, 2006 and as amended thereof subject to stipulation of specific and general conditions as detailed in Annexure (1).
6. The SEIAA has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the State Expert Appraisal Committee (SEAC) hereby decided to grant Terms of Reference for instant proposal of M/s. HIMANSHU SANTRA under the provisions of EIA Notification, 2006 and as amended thereof.
7. **Potential impact study in the EIA should be done considering the cumulative effect of all the mines in the cluster situation, if any.**
8. The Ministry reserves the right to stipulate additional conditions, if found necessary.
9. The Terms of Reference to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.
10. **The ToR is valid for a period of 3 years from the date of issue. EIA/EMP to be submitted before the expiry of the ToR for consideration of EC applications.**
11. This issues with the approval of the Competent Authority.



Annexure 1

Specific Terms of Reference for (Mining Of Minerals)

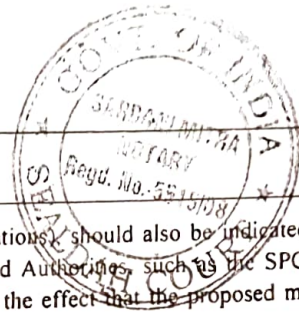
#### 1. A. Standard Terms Of Reference

| S. No | Terms of Reference  |
|-------|---|
| 1.1   | <ol style="list-style-type: none"> <li>1. Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t the highest production achieved prior to 1994</li> <li>2. A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.</li> <li>3. All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.</li> <li>4. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone)</li> <li>5. Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.</li> <li>6. Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.</li> <li>7. It should be clearly stated whether the proponent Company has a well laid down Environment</li> </ol> |

73

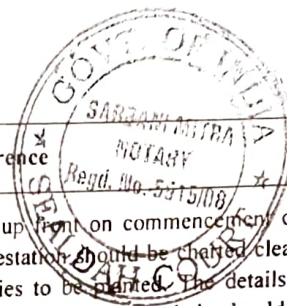
| S. No | Terms of Reference   |
|-------|--|
|       | <p>Policy approved by its Board of Directors. If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/violation of the environmental or forest norms/conditions. The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.</p> <p>8. Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.</p> <p>9. The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.</p> <p>10. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.</p> <p>11. Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&amp;R issues, if any, should be given.</p> <p>12. A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.</p> <p>13. Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of Net Present Value (NPV) and Compensatory Afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.</p> <p>14. Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.</p> <p>15. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.</p> <p>16. A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.</p> <p>17. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.</p> <p>18. A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.</p> <p>19. Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the</p> |

H



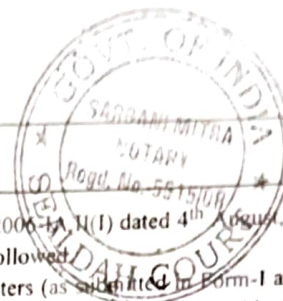
| S. No | Terms of Reference  |
|-------|---|
|       | <p>'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.</p> <p>20. Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).</p> <p>21. R&amp;R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&amp;R Plan, the relevant State/National Rehabilitation &amp; Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectorial programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&amp;R and socio-economic aspects should be discussed in the Report.</p> <p>22. One season (non-monsoon) [i.e. March-May (Summer Season): October-December (post monsoon season) ; December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM10, particularly for free silica, should be given.</p> <p>23. Air quality modeling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modeling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.</p> <p>24. The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.</p> <p>25. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.</p> <p>26. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.</p> <p>27. Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.</p> <p>28. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.</p> <p>29. Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.</p> <p>30. Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.</p> <p>31. A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted.</p> |

75



| S. No | Terms of Reference  |
|-------|---|
|       | <p>keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.</p> <p>32. Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.</p> <p>33. Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.</p> <p>34. Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report</p> <p>35. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.</p> <p>36. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.</p> <p>37. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.</p> <p>38. Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.</p> <p>39. Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.</p> <p>40. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.</p> <p>41. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.</p> <p>42. A Disaster management Plan shall be prepared and included in the EIA/EMP Report.</p> <p>43. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.</p> <p>44. Besides the above, the below mentioned general points are also to be followed:-</p> <ol style="list-style-type: none"> <li>Executive Summary of the EIA/EMP Report (enclosed as Annexure – A).</li> <li>All documents to be properly referenced with index and continuous page numbering.</li> <li>Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.</li> <li>Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&amp;CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.</li> <li>Where the documents provided are in a language other than English, an English translation should be provided.</li> <li>The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.</li> <li>While preparing the EIA report, the instructions for the Proponents and instructions for the</li> </ol> |

76



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

## 2. B. Additional Terms Of Reference Imposed By Seac -

| S. No | Terms of Reference   |
|-------|--|
| 2.1   | <ol style="list-style-type: none"> <li>1. Cluster Certificate from the competent authority.</li> <li>2. Taking into consideration the replenishment rates reported in the approved DSR for Purba Bardhaman, both geological and mining reserves for second year (of production) onwards may be re-estimated and the annual production levels may be modified accordingly.</li> <li>3. Drone videography of the entire project area explicitly showing the entire project site along with the existing tree plantation green belt. Minimum 2 minute video to be submitted.</li> <li>4. Photographs of the site mentioning the geo-coordinates.</li> <li>5. Standard practice of management of the intermediate storage area should be submitted.</li> <li>6. Means of access and egress between the embankment and the sand quarry may be clearly earmarked. The Project Proponent must commit that no hard topping or paving of any haulage route within the riverbed will be attempted.</li> <li>7. A plan on the management and handling of sand during the period of intermediate stockpiling should be submitted.</li> <li>8. <b>The PP has to do tree plantation in an area equivalent to 33% of the lease area @2500 trees / ha within first two years from the starting of the mining operation. A Progressive Greenbelt Plan may be prepared. The project area being entirely on the riverbed, afforestation/ vegetation should be attempted alongside the village roads or other public land. This may be done with prior approval of the local self-governing bodies. If no public land is available for the purpose the Project Proponent shall arrange for land with his personal means. To enhance success/ survival rate the plantation shall be completed during the first two years of the project life and the plantation so done shall be taken care of during the rest of the project life. Species of the plant selected should be local and self-sustaining in that particular region. Spatial year wise progressive plantation programme to be submitted.</b></li> <li>9. Plan showing spatial year wise distribution of the proposed greenbelt has to be submitted along-with supporting documents of administrative approval/s.</li> <li>10. Being a mine in operation, the plantation created so far may be submitted with geotagged photographs.</li> <li>11. EIA should also include detailed study of the baseline condition and impact on aquatic flora and fauna.</li> <li>12. The project cost may include the auction bid value, estimated royalty to be paid, cost of any infrastructure built like office space, stockyard, etc. The calculation/documents to estimate the project cost should be submitted. The planned expenditure for components like need-based</li> </ol> |

77

| S. No | Terms of Reference   |
|-------|--|
|       | <p>activities may be derived based on the project cost.</p> <p>13. A need-based EMP may be prepared in accordance with the MoEF&amp;CC Office Memorandum vide F. No. 22-65/2017.IA.III dated 30.09.2020. Record of communications made in this regard with the identified/ intended beneficiaries (schools/ institutions) etc may also be uploaded. The activities should be completed within the first two years of the project life.</p> <p>14. A study report on base flow level measured at 5 points with date and supporting photographs should be submitted. It should be committed that mining will be done at least 1m above the base flow level. Accordingly, if required, the excavation plan may also be revised.</p> <p>15. Management plan including the final closure plan of haul road to be submitted.</p> <p>16. Sieve analysis report for grain size distribution should be provided.</p> <p>17. Study and protection plan of the aquatic life available both during the mining and non-mining seasons should be provided.</p> <p>While applying for environmental clearance, the PP shall upload in the PARIVESH portal, the EIA/EMP report along with the documents/ submissions/ clarifications sought hereinabove.</p> <p>The West Bengal Pollution Control Board shall arrange public hearing as per EIA Notification, 2006 on submission of draft EIA/EMP prepared by the Project Proponent as per the above-mentioned ToRs. All the issues mentioned in the 'Public Hearing Report' and public consultation must also be addressed and incorporated in the final EIA / EMP report. The project proponent is requested to pursue the matter with the WBPCB for organizing the public hearing/consultation on submission of the draft EIA/EMP report as per the provision of EIA notification 2006 &amp; its amendments. The project proponent is requested to submit the final EIA/EMP prepared as per the above-mentioned ToRs and incorporating all the issues raised during Public Hearing / Public Consultation to the SEAC for further consideration of the proposal for environmental clearance.</p> <p>The ToR is valid for a period of 3 (three) years from the date of issue.</p> |

## 3. Annexure - A

| S. No | Terms of Reference  |
|-------|---|
| 3.1   | <p style="text-align: right;"><b>Annexure - A</b></p> <p style="text-align: center;"><b>Executive Summary</b></p> <p>The Executive summary of the EIA/EMP report in about 8-10 pages should be prepared incorporating the information on following points:</p> <ol style="list-style-type: none"> <li>1) Project name and location (Village, District, State, Industrial Estate (if applicable).</li> <li>2) Products and capacities. If expansion proposal, then existing products with capacities and reference to earlier EC.</li> <li>3) Requirement of land, raw material, water, power, fuel, with source of supply (Quantitative).</li> <li>4) Process description in brief, specifically indicating the gaseous emission, liquid effluent and solid and hazardous wastes.</li> <li>5) Measures for mitigating the impact on the environment and mode of discharge or disposal.</li> <li>6) Capital cost of the project, estimated time of completion.</li> <li>7) Site selected for the project - Nature of land - Agricultural (single/double crop), barren, Govt./private land, status of is acquisition, nearby (in 2-3 km.) water body, population, with in 10km. other industries, forest, eco-sensitive zones, accessibility. (note - in case of industrial estate this information may not be necessary).</li> <li>8) Baseline environmental data - air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population.</li> <li>9) Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.</li> <li>10) Likely impact of the project on air, water, land, flora-fauna and nearby population.</li> <li>11) Emergency preparedness plan in case of natural or in plant emergencies.</li> </ol> |

78



| S. No | Terms of Reference   |
|-------|--|
|       | 12) Issues raised during public hearing (if applicable) and response given<br>13) Environment Management Plan (EMP) as per Office Memorandum issued by the MoEF & CC vide F. No. 22-65/2017-IA.III dated 30.09.2020 with proposed expenditure.<br>14) Occupational Health Measures.<br>15) Post project monitoring plan. |

**Standard Terms of Reference for (Mining of minerals)**

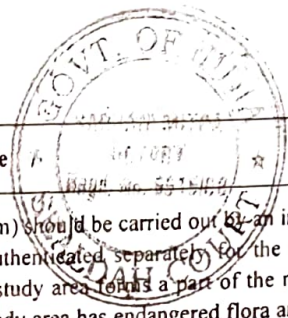
1.

| S. No | Terms of Reference   |
|-------|--|
| 1.1   | An EIA-EMP Report shall be prepared for peak capacity (.....MTPA)operation in an ML/project area of.....ha based on the generic structure specified in Appendix III of the EIA Notification, 2006.   |
| 1.2   | An EIA-EMP Report would be prepared for peak capacity operation to cover the impacts and environment management plan for the project specific activities on the environment of the region, and the environmental quality encompassing air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modeling for..... MTPA of coal production based on approved project/Mining Plan for.....MTPA. Baseline data collection can be for any season (three months) except monsoon.  |
| 1.3   | If the washery is located within the mine lease or near to the mine lease its location should be cited seperately also, providing pillar cordinates and site layout plan. Insuch cases cumulative impact of mine operation with washery to be assessd and EMP measure to be drawn to the worst scenario  |
| 1.4   | Plan of mechanized transportation of coal to coal washery also for rejects and washed coal to be drawn   |
| 1.5   | Propoer KML file with pin drop and coordinate of mine at 500-1000 m interval be provided   |
| 1.6   | A Study area map of the core zone (project area) and 10 km area of the buffer zone (1: 50,000 scale) clearly delineating the major topographical features such as the land use, surface drainage pattern including rivers/streams/nullahs/canals, locations of human habitations, major constructions including railways, roads, pipelines, major industries, mines, coal washery and other polluting sources. In case of ecologically sensitive areas such as Biosphere Reserves/National Parks/WL Sanctuaries/ Elephant Reserves, forests (Reserved/Protected), migratory corridors of fauna, and areas where endangered fauna and plants of medicinal and economic importance found in the 15 km study area should be given. The above details to be furnished in tabular form also |
| 1.7   | Map showing the core zone delineating the agricultural land (irrigated and un-irrigated, uncultivable land as defined in the revenue records, forest areas (as per records), along with other physical features such as water bodies, etc should be furnished.   |
| 1.8   | A contour map showing the area drainage of the core zone and 25 km of the study area (where the water courses of the core zone ultimately join the major rivers/streams outside the lease/project area) should also be clearly indicated in the separate map.  |
| 1.9   | Catchment area with its drainage map of 25 km area within and outside the mine shall be provided   |

79

| S. No                   | Terms of Reference  |                              |                               |                              |                      |                     |  |  |  |               |  |  |  |                |  |  |  |               |  |  |  |                    |  |  |  |      |         |           |   |           |  |   |                |  |   |       |  |   |                  |  |  |       |  |
|-------------------------|---|------------------------------|-------------------------------|------------------------------|----------------------|---------------------|--|--|--|---------------|--|--|--|----------------|--|--|--|---------------|--|--|--|--------------------|--|--|--|------|---------|-----------|---|-----------|--|---|----------------|--|---|-------|--|---|------------------|--|--|-------|--|
|                         | with names, details of rivers/ riverlet system and its respective order. The map should clearly indicate drainage pattern of the catchment area with basin of minor rivers. Diversion of drains/ river need elaboration in form of length, quantity and quality of water to be diverted   |                              |                               |                              |                      |                     |  |  |  |               |  |  |  |                |  |  |  |               |  |  |  |                    |  |  |  |      |         |           |   |           |  |   |                |  |   |       |  |   |                  |  |  |       |  |
| 1.10                    | (Details of mineral reserves, geological status of the study area and the seams to be worked, ultimate working depth and progressive stage-wise working scheme until the end of mine life should be provided on the basis of the approved rated capacity and calendar plans of production from the approved Mining Plan. Geological maps and sections should be included. The Progressive mine development and Conceptual Final Mine Closure Plan should also be shown in figures. Details of mine plan and mine closure plan approval of Competent Authority should be furnished for green field and expansion projects.   |                              |                               |                              |                      |                     |  |  |  |               |  |  |  |                |  |  |  |               |  |  |  |                    |  |  |  |      |         |           |   |           |  |   |                |  |   |       |  |   |                  |  |  |       |  |
| 1.11                    | Details of mining methods, technology, equipment to be used, etc., rationale for selection of specified technology and equipment proposed to be used vis-à-vis the potential impacts should be provided.  |                              |                               |                              |                      |                     |  |  |  |               |  |  |  |                |  |  |  |               |  |  |  |                    |  |  |  |      |         |           |   |           |  |   |                |  |   |       |  |   |                  |  |  |       |  |
| 1.12                    | Impact of mining on hydrology, modification of natural drainage, diversion and channeling of the existing rivers/water courses flowing through the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.  |                              |                               |                              |                      |                     |  |  |  |               |  |  |  |                |  |  |  |               |  |  |  |                    |  |  |  |      |         |           |   |           |  |   |                |  |   |       |  |   |                  |  |  |       |  |
| 1.13                    | A detailed Site plan of the mine showing the proposed break-up of the land for mining operations such as the quarry area, OB dumps, green belt, safety zone, buildings, infrastructure, CHP, ETP, Stockyard, township/colony (within and adjacent to the ML), undisturbed area -if any, and landscape features such as existing roads, drains natural water bodies to be left undisturbed along with any natural drainage adjoining the lease project areas, and modification of thereof in terms of construction of embankments/bunds, proposed diversion/re-channelling of the water courses, etc., approach roads, major haul roads, etc should be indicated.  |                              |                               |                              |                      |                     |  |  |  |               |  |  |  |                |  |  |  |               |  |  |  |                    |  |  |  |      |         |           |   |           |  |   |                |  |   |       |  |   |                  |  |  |       |  |
| 1.14                    | <p>Original land use (agricultural land/forestland/grazing land/wasteland/water bodies) of the area should be provided as per the tables given below. Impacts of project, if any on the land use, in particular, agricultural land/forestland/grazing land/water bodies falling within the lease/project and acquired for mining operations should be analyzed. Extent of area under surface rights and under mining rights should be specified. Area under Surface Rights</p> <table border="1" data-bbox="339 1339 1263 1577"> <thead> <tr> <th>S.N ML/Project Land use</th> <th>Area under Surface Rights(ha)</th> <th>Area Under Mining Rights(ha)</th> <th>Area under Both (ha)</th> </tr> </thead> <tbody> <tr> <td>1 Agricultural land</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2 Forest Land</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3 Grazing Land</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4 Settlements</td> <td></td> <td></td> <td></td> </tr> <tr> <td>5 Others (specify)</td> <td></td> <td></td> <td></td> </tr> </tbody> </table><br><table border="1" data-bbox="339 1633 1063 1837"> <thead> <tr> <th>S.N.</th> <th>Details</th> <th>Area (ha)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Buildings</td> <td></td> </tr> <tr> <td>2</td> <td>Infrastructure</td> <td></td> </tr> <tr> <td>3</td> <td>Roads</td> <td></td> </tr> <tr> <td>4</td> <td>Others (specify)</td> <td></td> </tr> <tr> <td></td> <td>Total</td> <td></td> </tr> </tbody> </table> | S.N ML/Project Land use      | Area under Surface Rights(ha) | Area Under Mining Rights(ha) | Area under Both (ha) | 1 Agricultural land |  |  |  | 2 Forest Land |  |  |  | 3 Grazing Land |  |  |  | 4 Settlements |  |  |  | 5 Others (specify) |  |  |  | S.N. | Details | Area (ha) | 1 | Buildings |  | 2 | Infrastructure |  | 3 | Roads |  | 4 | Others (specify) |  |  | Total |  |
| S.N ML/Project Land use | Area under Surface Rights(ha)   | Area Under Mining Rights(ha) | Area under Both (ha)          |                              |                      |                     |  |  |  |               |  |  |  |                |  |  |  |               |  |  |  |                    |  |  |  |      |         |           |   |           |  |   |                |  |   |       |  |   |                  |  |  |       |  |
| 1 Agricultural land     |   |                              |                               |                              |                      |                     |  |  |  |               |  |  |  |                |  |  |  |               |  |  |  |                    |  |  |  |      |         |           |   |           |  |   |                |  |   |       |  |   |                  |  |  |       |  |
| 2 Forest Land           |   |                              |                               |                              |                      |                     |  |  |  |               |  |  |  |                |  |  |  |               |  |  |  |                    |  |  |  |      |         |           |   |           |  |   |                |  |   |       |  |   |                  |  |  |       |  |
| 3 Grazing Land          |   |                              |                               |                              |                      |                     |  |  |  |               |  |  |  |                |  |  |  |               |  |  |  |                    |  |  |  |      |         |           |   |           |  |   |                |  |   |       |  |   |                  |  |  |       |  |
| 4 Settlements           |   |                              |                               |                              |                      |                     |  |  |  |               |  |  |  |                |  |  |  |               |  |  |  |                    |  |  |  |      |         |           |   |           |  |   |                |  |   |       |  |   |                  |  |  |       |  |
| 5 Others (specify)      |   |                              |                               |                              |                      |                     |  |  |  |               |  |  |  |                |  |  |  |               |  |  |  |                    |  |  |  |      |         |           |   |           |  |   |                |  |   |       |  |   |                  |  |  |       |  |
| S.N.                    | Details   | Area (ha)                    |                               |                              |                      |                     |  |  |  |               |  |  |  |                |  |  |  |               |  |  |  |                    |  |  |  |      |         |           |   |           |  |   |                |  |   |       |  |   |                  |  |  |       |  |
| 1                       | Buildings   |                              |                               |                              |                      |                     |  |  |  |               |  |  |  |                |  |  |  |               |  |  |  |                    |  |  |  |      |         |           |   |           |  |   |                |  |   |       |  |   |                  |  |  |       |  |
| 2                       | Infrastructure  |                              |                               |                              |                      |                     |  |  |  |               |  |  |  |                |  |  |  |               |  |  |  |                    |  |  |  |      |         |           |   |           |  |   |                |  |   |       |  |   |                  |  |  |       |  |
| 3                       | Roads   |                              |                               |                              |                      |                     |  |  |  |               |  |  |  |                |  |  |  |               |  |  |  |                    |  |  |  |      |         |           |   |           |  |   |                |  |   |       |  |   |                  |  |  |       |  |
| 4                       | Others (specify)  |                              |                               |                              |                      |                     |  |  |  |               |  |  |  |                |  |  |  |               |  |  |  |                    |  |  |  |      |         |           |   |           |  |   |                |  |   |       |  |   |                  |  |  |       |  |
|                         | Total   |                              |                               |                              |                      |                     |  |  |  |               |  |  |  |                |  |  |  |               |  |  |  |                    |  |  |  |      |         |           |   |           |  |   |                |  |   |       |  |   |                  |  |  |       |  |

80



| S. No | Terms of Reference   |
|-------|--|
| 1.15  | Study on the existing flora and fauna in the study area (10km) should be carried out by an institution of relevant discipline. The list of flora and fauna duly authenticated separately for the core and study area and a statement clearly specifying whether the study area forms a part of the migratory corridor of any endangered fauna should be given. If the study area has endangered flora and fauna, or if the area is occasionally visited or used as a habitat by Schedule-I species, or if the project falls within 15 km of an ecologically sensitive area, or used as a migratory corridor then a Comprehensive Conservation Plan along with the appropriate budgetary provision should be prepared and submitted with EIA-EMP Report; and comments/observation from the CWLW of the State Govt. should also be obtained and furnished. |
| 1.16  | One-season (other than monsoon) primary baseline data on environmental quality - air (PM10, PM2.5, SOx, NOx and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided. The detail of NABL/ MoEF&CC certification of the respective laboratory and NABET accreditation of the consultant to be provided.  |
| 1.17  | Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided. The number and location of the sampling stations in both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One station should be in the upwind/upstream/non-impact/non-polluting area as a control station. The monitoring should be as per CPCB guidelines and parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Observed values should be provided along with the specified standards.      |
| 1.18  | For proper baseline air quality assessment, Wind rose pattern in the area should be reviewed and accordingly location of AAMSQ shall be planned by the collection of air quality data by adequate monitoring stations in the downwind areas. Monitoring location for collecting baseline data should cover overall the 10 km buffer zone i.e. dispersed in 10 km buffer area. In case of expansion, the displayed data of CAAQMS and its comparison with the monitoring data to be provided  |
| 1.19  | A detailed traffic study along with presence of habitation in 100 mts distance from both side of road, the impact on the air quality with its proper measures and plan of action with timeline for widening of road. The project will increase the no. of vehicle along the road which will indirectly contribute to carbon emission so what will be the compensatory action plan should be clearly spell out in EIA/ EMP report.  |
| 1.20  | The socio-economic study to conducted with actual survey report and a comparative assessment to be provided from the census data should be provided in EIA/ EMP report also occupational status & economic status of the study area and what economically project will contribute should be clearly mention. The study should also include the status of infrastructural facilities and amenities present in the study area and a comparative assessment with census data to be provided and to link it with the initialization and quantification of need based survey for CSR activities to be followed.   |
| 1.21  | The Ecology and biodiversity study should also indicate the likely impact of change in forest area for surface infrastructural development or mining activity in relation to the climate change of that area and what will be the compensatory measure to be adopted by PP to minimize the impact of forest diversion.   |
| 1.22  | Baseline data on the health of the population in the impact zone and measures for occupational   |

81

| S. No | Terms of Reference   |
|-------|--|
|       | health and safety of the personnel and manpower for the mine should be submitted.  |
| 1.23  | Impact of proposed project/activity on hydrological regime of the area shall be assessed and report be submitted. Hydrological studies as per GEC 2015 guidelines to be prepared and submitted   |
| 1.24  | Impact of mining and water abstraction from the mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there is a declining trend of groundwater availability and/or if the area falls within dark/grey zone.   |
| 1.25  | Study on land subsidence including modeling for prediction, mitigation/prevention of subsidence, continuous monitoring measures, and safety issues should be carried out.  |
| 1.26  | Detailed water balance should be provided. The break up of water requirement as per different activities in the mining operations, including use of water for sand stowing should be given separately. Source of water for use in mine, sanction of the Competent Authority in the State Govt. and impacts vis-à-vis the competing users should be provided.   |
| 1.27  | PP shall submit design details of all Air Pollution control equipment (APCEs) to be implemented as part of Environment Management Plan vis-à-vis reduction in concentration of emission for each APCEs   |
| 1.28  | PP shall propose to use L.NG/CNG based mining machinerjes and trucks for mining operation and transportation of coal. The measures adopted to conserve energy or use of renewable sources shall be explored  |
| 1.29  | PP to evaluate the green house emission gases from the mine operation/ washery plant and corresponding carbon absorption plan.   |
| 1.30  | PP shall explore the use of vent gases as generated from under ground Mine for use of energy generation/ in house energy consumption   |
| 1.31  | Site specific Impact assessment with its mitigation measures, Risk Assessment and Disaster Preparedness and Management Plan should be provided.  |
| 1.32  | Impact of stowing by using coal washery rejects/ flyash/ bottom ash shall be assessed in term of leachate generation and its characteristics   |
| 1.33  | Impact of choice of mining method, technology, selected use of machinery and impact on air quality, mineral transportation, coal handling & storage/stockyard, etc, Impact of blasting, noise and vibrations should be provided.   |
| 1.34  | Impacts of mineral transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop etc, management plan for maintenance of HEMM and other machinery/equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided. |

82

| S. No | Terms of Reference  |
|-------|---|
| 1.35  | Effort be made to reduce/eliminate road transport of coal inside and outside mine and for mechanized loading of coal through CHP/ Silo into wagons and trucks/tippers.  |
| 1.36  | Details of various facilities to be provided to the workers in terms of parking, rest areas and canteen. and effluents/pollution load resulting from these activities should also be given.   |
| 1.37  | The number and efficiency of mobile static water jet, Fog cannon sprinkling system along the main mineral transportation road inside the mine, approach roads to the mine stockyard/siding, and also the frequency of their use in impacting air quality should be provided.  |
| 1.38  | Impacts of CHP, if any on air and water quality should be given. A flow chart showing water balance along with the details of zero discharge should be provided.  |
| 1.39  | Conceptual Final Mine Closure Plan and post mining land use and restoration of land/habitat to the pre- mining status should be provided. A Plan for the ecological restoration of the mined out area and post mining land use should be prepared with detailed cost provisions. Impact and management of wastes and issues of re-handling (wherever applicable) and backfilling and progressive mine closure and reclamation should be furnished.  |
| 1.40  | Adequate greenbelt nearby areas, coal stock yard and transportation area of coal shall be provided with details of species selected and survival rate Greenbelt development should be undertaken particularly around the transport route and CHP.   |
| 1.41  | Cost of EMP (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.   |
| 1.42  | Details of R&R. Detailed project specific R&R Plan with data on the existing socio- economic status of the population (including tribals, SC/ST, BPL families) found in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternate livelihood concerns/employment for the displaced people, civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan should be given.  |
| 1.43  | CSR Plan along with details of villages and specific budgetary provisions (capital and recurring) for specific activities over the life of the project should be given.   |
| 1.44  | <p>Corporate Environment Responsibility:</p> <p>a) The Company must have a well laid down Environment Policy approved by the Board of Directors.</p> <p>b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.</p> <p>c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.</p> <p>d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.</p> <p>e) Environment Management Cell and its responsibilities to be clearly spelt out in EIA/ EMP report.</p> <p>f) In built mechanism of self-monitoring of compliance of environmental regulations should be indicated.</p> |

83

| S. No | Terms of Reference   |
|-------|--|
|       | <b>mines in the cluster situation, if any.</b>   |
| 1.58  | The need based activity should be completed within a period of first two years of the project life. The need based activities plan containing year-wise allocation of funds for each of the activities proposed. specific information related to each activity like name of school/institution, location etc and name of Govt. bodies/agencies in collaboration with whom each activity would be executed should be submitted with the EIA Report. |



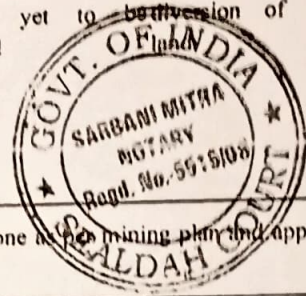
Signature Not Verified

Digitally Signed by: Shri Dharmdeo Rai  
IFS  
Member Secretary, SEIAA

Date: 24/07/2024

87

| S. No        | Terms of Reference   |          |             |   |           |   |              |        |       |             |                          |      |           |  |  |          |
|--------------|--|----------|-------------|---|-----------|---|--------------|--------|-------|-------------|--------------------------|------|-----------|--|--|----------|
| 1.45         | Submission of sample test analysis of Characteristics of coal: This should include details on grade of coal and other characteristics such as ash content, S and heavy metals including levels of Hg, As, Pb, Cr etc.  |          |             |   |           |   |              |        |       |             |                          |      |           |  |  |          |
| 1.46         | Status of any litigations/ court cases filed/pending on the project should be provided.  |          |             |   |           |   |              |        |       |             |                          |      |           |  |  |          |
| 1.47         | PP shall submit clarification from PCCF that mine does not falls under corridors of any National Park and Wildlife Sanctuary with certified map showing distance of nearest sanctuary.   |          |             |   |           |   |              |        |       |             |                          |      |           |  |  |          |
| 1.48         | Copy of clearances/approvals such as Forestry clearances, Mining Plan Approval, mine closer plan approval. NOC from Flood and Irrigation Dept. (if req.), etc. wherever applicable.  |          |             |   |           |   |              |        |       |             |                          |      |           |  |  |          |
| 1.49         | <p>Details on the Forest Clearance should be given as per the format given:</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 20%;">Total ML</td> <td style="width: 20%;">Total</td> <td style="width: 20%;">Date</td> <td style="width: 20%;">Extent of</td> <td style="width: 20%;">Balance area for which Status of appl For</td> </tr> <tr> <td>Project Area</td> <td>Forest</td> <td>of FC</td> <td>Forest Land</td> <td>FC is yet to be obtained</td> </tr> <tr> <td>(ha)</td> <td>land (ha)</td> <td></td> <td></td> <td>obtained</td> </tr> </table> <p>If more than one provide details of each FC</p> | Total ML | Total       | Date                                      | Extent of | Balance area for which Status of appl For | Project Area | Forest | of FC | Forest Land | FC is yet to be obtained | (ha) | land (ha) |  |  | obtained |
| Total ML     | Total  | Date     | Extent of   | Balance area for which Status of appl For |           |   |              |        |       |             |                          |      |           |  |  |          |
| Project Area | Forest   | of FC    | Forest Land | FC is yet to be obtained                  |           |   |              |        |       |             |                          |      |           |  |  |          |
| (ha)         | land (ha)  |          |             | obtained                                  |           |   |              |        |       |             |                          |      |           |  |  |          |
| 1.50         | In case of expansion of the proposal, the status of the work done in the mining plan and approved mine closure plan shall be detailed in EIA EMP report  |          |             |   |           |   |              |        |       |             |                          |      |           |  |  |          |
| 1.51         | Details on Public Hearing should cover the information relating to notices issued in the newspaper, proceedings/minutes of Public Hearing, the points raised by the general public and commitments made by the proponent and the time bound action proposed with budgets in suitable time frame. These details should be presented in a tabular form. If the Public Hearing is in the regional language, an authenticated English Translation of the same should be provided.  |          |             |   |           |   |              |        |       |             |                          |      |           |  |  |          |
| 1.52         | PP shall carry out survey through drone highlighting the ground reality for atleast 10 minutes   |          |             |   |           |   |              |        |       |             |                          |      |           |  |  |          |
| 1.53         | Detailed Chronology of the project starting from the first lease deed allotted/Block allotment/ Land acquired to its No. of renewals, CTO /CTE with details of no. renewals, previous EC(s) granted details and its compliance details, NOC details from various Govt bodies like Forest NOC(s), CGWA permissions, Power permissions, etc as per the requisites respectively to be furnished in tabular form.  |          |             |   |           |   |              |        |       |             |                          |      |           |  |  |          |
| 1.54         | A copy of application submitted for 5 star rating system to Ministry of coal for expansion cases may be provided. Certificate /rating given to project shall be provided with EIA-EMP report   |          |             |   |           |   |              |        |       |             |                          |      |           |  |  |          |
| 1.55         | The first page of the EIA/ EMP report must mention the peak capacity production, area, detail of PP, Consultant (NABET accreditation) and Laboratory (NABL / MoEF & CC certification)  |          |             |   |           |   |              |        |       |             |                          |      |           |  |  |          |
| 1.56         | The compliances of ToR must be properly cited with respective chapter section and page no in tabular form and also mention sequence of the respective ToR complied within the EIA-EMP report in all the chapter,s section.   |          |             |   |           |   |              |        |       |             |                          |      |           |  |  |          |
| 1.57         | Potential impact study in the EIA should be done considering the cumulative effect of all the  |          |             |   |           |   |              |        |       |             |                          |      |           |  |  |          |



85

| S. No | Terms of Reference   |
|-------|--|
|       | <b>mines in the cluster situation, if any.</b>   |
| 1.58  | The need based activity should be completed within a period of first two years of the project life. The need based activities plan containing year-wise allocation of funds for each of the activities proposed. specific information related to each activity like name of school/institution, location etc and name of Govt. bodies/agencies in collaboration with whom each activity would be executed should be submitted with the EIA Report. |



Signature Not Verified

Digitally Signed by: Shri Dharmdeo Rai  
IFS  
Member Secretary, SEIAA

Date: 24/07/2024

86



### Kalinagar Sand Block

- 1. Kalinagar Sand Block (2017\_DMBUW\_676)  
(Polygon as per geo coordinates of approved mine plan (27.10.2021) in
- 2. Potential Zone: PBBD\_BD2\_DA\_15A of DSR approved on 01.02.2024  
(Polygon boundary in black colour)



### Legend

- 2017\_DMBUW\_676
- Potential Zone: PBBD\_BD2\_DA\_15A of DSR 2024

27

# DISTRICT SURVEY REPORT OF PURBA BARDHAMAN DISTRICT (Modified)

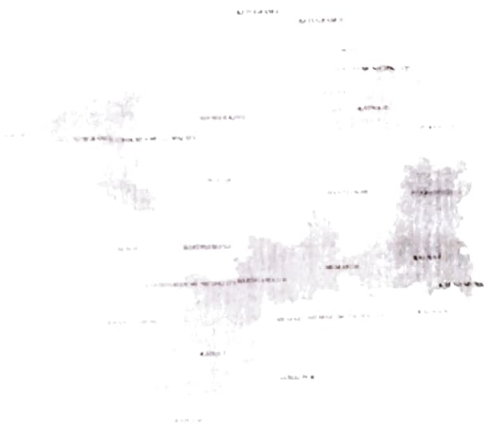
(For mining of minor minerals)

As per Notification No.S.O.141 (E) New Delhi Dated 15<sup>th</sup> of January 2016,  
S.O.3611 (E) New Delhi Dated 25<sup>th</sup> of July 2018 and Enforcement &  
Monitoring Guidelines for Sand Mining (EMGSM) January 2020, Issued by  
Ministry of Environment, Forest and Climate Change (MoEF&CC)

### SEIAA APPROVAL DATE:

1<sup>st</sup> February 2024

(As published in the  
Minutes of 30<sup>th</sup> Meeting of  
SEIAA under Miscellaneous  
Section, Point No.4)



**1<sup>st</sup> Modification: 29<sup>th</sup> November 2023**

**1<sup>st</sup> Approval: 8<sup>th</sup> September 2022**



**PREPARED BY**  
**Department of Industry, Commerce & Enterprises**  
**Government of West Bengal**

**Version- 2**

88

District Survey Report  
Purba Bardhaman District,  
West Bengal



| CODE           | POINT ID        | LATITUDE          | LONGITUDE         |
|----------------|-----------------|-------------------|-------------------|
|                | 2               | 23° 9' 48.731" N  | 87° 58' 12.384" E |
|                | 3               | 23° 10' 4.501" N  | 87° 57' 45.523" E |
|                | 4               | 23° 10' 10.002" N | 87° 57' 27.012" E |
|                | 5               | 23° 10' 10.036" N | 87° 57' 0.702" E  |
|                | 6               | 23° 10' 13.531" N | 87° 56' 42.834" E |
|                | 7               | 23° 10' 12.281" N | 87° 57' 0.493" E  |
|                | 8               | 23° 10' 14.931" N | 87° 57' 17.634" E |
|                | 9               | 23° 10' 12.797" N | 87° 57' 28.971" E |
|                | 10              | 23° 10' 15.005" N | 87° 57' 33.639" E |
|                | 11              | 23° 10' 9.319" N  | 87° 57' 42.630" E |
|                | 12              | 23° 10' 10.087" N | 87° 57' 50.824" E |
|                | 13              | 23° 10' 8.817" N  | 87° 58' 1.609" E  |
|                | 14              | 23° 10' 9.392" N  | 87° 58' 5.893" E  |
|                | 15              | 23° 10' 7.812" N  | 87° 58' 11.000" E |
|                | PBBD_BD2_DA_15A | i                 | 23° 10' 27.837" N |
| 2              |                 | 23° 10' 23.726" N | 87° 57' 39.712" E |
| 3              |                 | 23° 10' 12.583" N | 87° 58' 10.980" E |
| 4              |                 | 23° 10' 12.834" N | 87° 58' 8.853" E  |
| 5              |                 | 23° 10' 11.833" N | 87° 58' 3.728" E  |
| 6              |                 | 23° 10' 12.021" N | 87° 58' 1.123" E  |
| 7              |                 | 23° 10' 15.613" N | 87° 57' 50.722" E |
| 8              |                 | 23° 10' 14.868" N | 87° 57' 45.790" E |
| 9              |                 | 23° 10' 18.342" N | 87° 57' 40.511" E |
| 10             |                 | 23° 10' 18.022" N | 87° 57' 36.508" E |
| 11             |                 | 23° 10' 18.035" N | 87° 57' 30.315" E |
| 12             |                 | 23° 10' 16.675" N | 87° 57' 27.515" E |
| 13             |                 | 23° 10' 16.280" N | 87° 57' 11.743" E |
| 14             |                 | 23° 10' 17.744" N | 87° 56' 59.758" E |
| 15             |                 | 23° 10' 19.413" N | 87° 56' 54.093" E |
| 16             |                 | 23° 10' 20.058" N | 87° 56' 47.026" E |
| 17             |                 | 23° 10' 21.368" N | 87° 56' 43.685" E |
| 18             |                 | 23° 10' 28.508" N | 87° 56' 40.396" E |
| 19             |                 | 23° 10' 30.787" N | 87° 56' 35.812" E |
| PBBD_ME1_DA_16 | 1               | 23° 9' 59.122" N  | 87° 58' 17.997" E |
|                | 2               | 23° 10' 1.818" N  | 87° 58' 19.454" E |
|                | 3               | 23° 9' 59.053" N  | 87° 58' 33.242" E |
|                | 4               | 23° 9' 55.577" N  | 87° 59' 0.908" E  |
|                | 5               | 23° 9' 52.206" N  | 87° 59' 11.602" E |
|                | 6               | 23° 9' 53.608" N  | 87° 59' 18.535" E |
|                | 7               | 23° 9' 50.653" N  | 87° 59' 28.786" E |
|                | 8               | 23° 9' 20.701" N  | 88° 0' 3.400" E   |

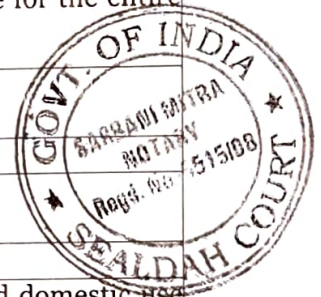
**PREFEASIBILITY REPORT  
KALINAGAR SAND MINE ON DAMODAR RIVER  
HIMANSHU SANTRA**

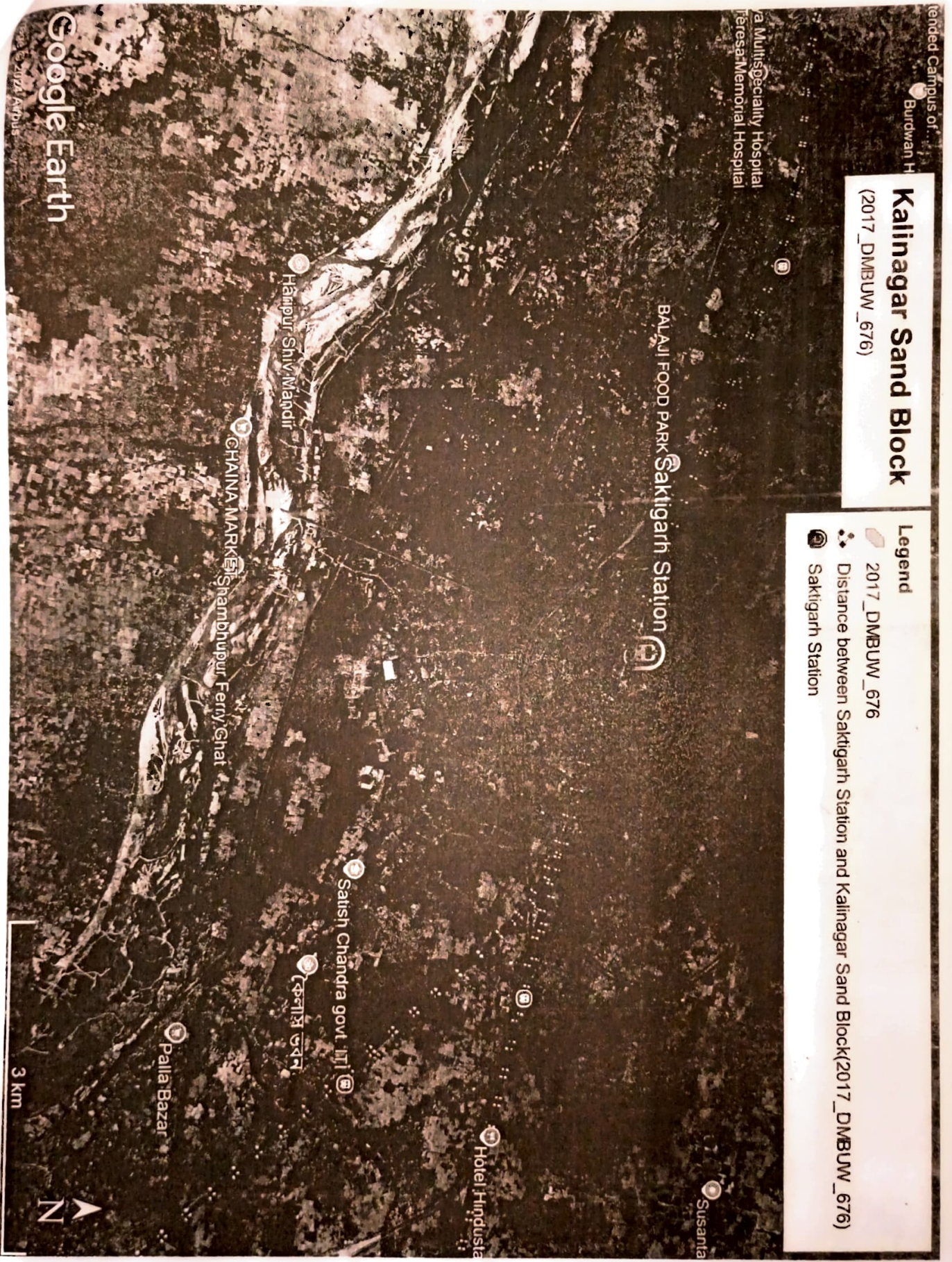
**CHAPTER-2**

Local manpower is being employed for sand mining operations at the mine site. The number of personnel deployed is depend on the daily production capacity. As per the assessment in the mine plan, an estimated requirement of manpower is 120 individuals.

**The salient feature of the project is described in Table No. C2-2**

| Sl. No. | Parameters                   | Description   |                 |               |
|---------|------------------------------|---|-----------------|---------------|
| 1       | Mining Lease Area            | 2.44 Hectare/6.04 Acres   |                 |               |
| 2       | Location of the project      | State   | West Bengal     |               |
|         |                              | District  | Purba Bardhaman |               |
|         |                              | P.S-  | Madhabdihi      |               |
|         |                              | Mouza-  | Kalinagar       |               |
|         |                              | JL No   | 160             |               |
|         |                              | Plot No   | 181(P), 205(P)  |               |
| 3       | Lease area Coordinate        | Point   | Latitude        | Longitude     |
|         |                              | A   | 23°10'17.06"N   | 87°57'11.56"E |
|         |                              | B   | 23°10'17.05"N   | 87°57'16.93"E |
|         |                              | C   | 23°10'21.84"N   | 87°57'18.06"E |
|         |                              | D   | 23°10'21.74"N   | 87°57'11.91"E |
| 4       | River/Canal/Khal             | Damodar   |                 |               |
| 5       | Topography                   | Plain   |                 |               |
| 6       | Minerals of the Mine         | Sand  |                 |               |
| 7       | Life of the Mine             | The estimated reserve will be replenished every year. So, the life of the mine will be for the entire lease period.   |                 |               |
| 8       | Proposed Production of Mine  | 59,100 m <sup>3</sup> /year   |                 |               |
| 9       | Method of Mining             | Manual  |                 |               |
| 10      | Drilling and Blasting        | Not Applicable  |                 |               |
| 11      | Water Demand                 | 6.81 KLD  |                 |               |
| 12      | Source of Water              | The required water for drinking and domestic use will be obtained from nearby villages with the necessary approval from the competent authority. Additionally, water for dust suppression and plantation purposes will be sourced from harvested water. |                 |               |
| 13      | Ultimate Depth of the Mining | 3.00 m  |                 |               |
| 14      | Average Man                  | 120   |                 |               |





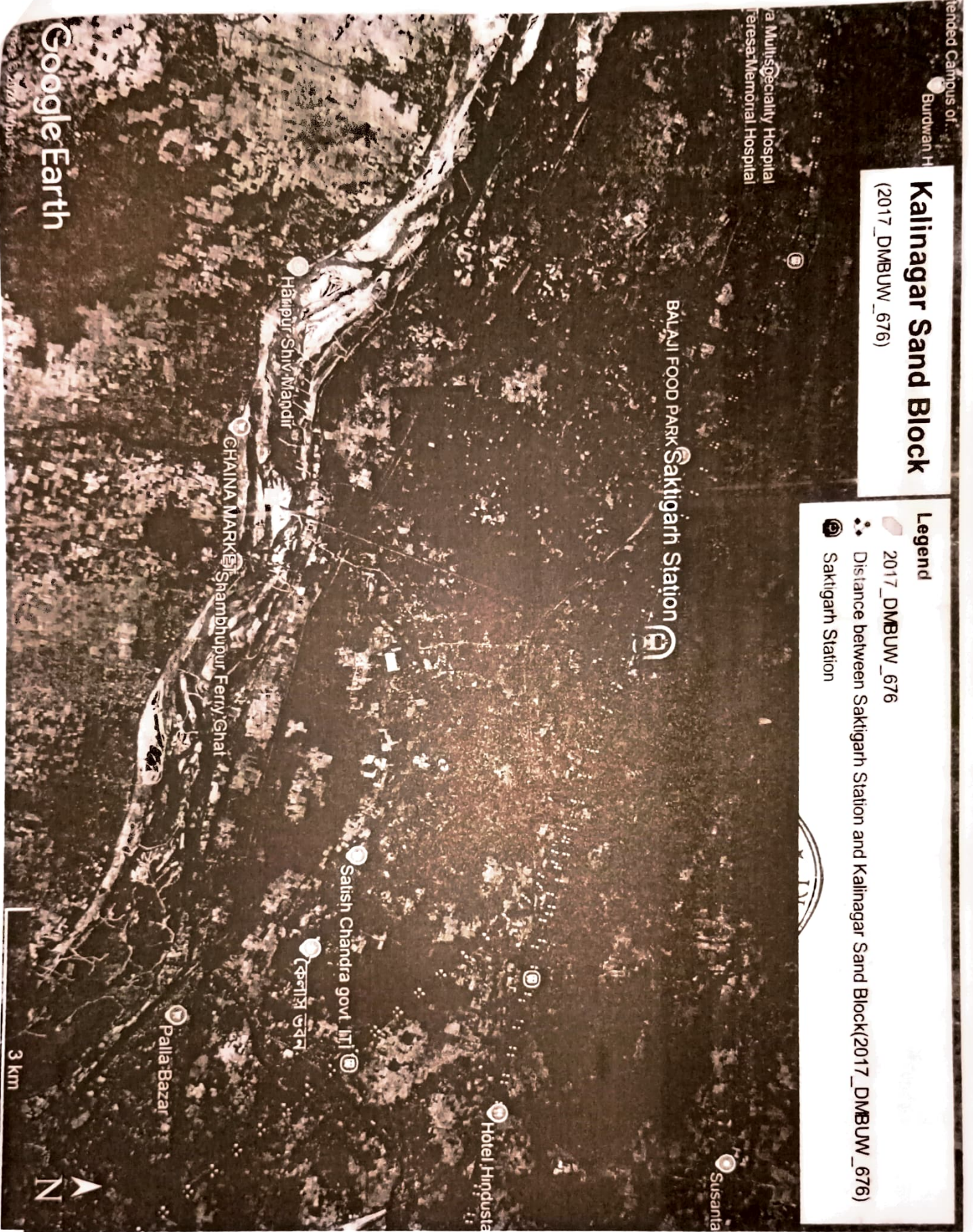
**Kalinagar Sand Block**  
(2017\_DMBUW\_676)

- Legend**
- 2017\_DMBUW\_676
  - Distance between Sakitigarh Station and Kalinagar Sand Block(2017\_DMBUW\_676)
  - Sakitigarh Station

Google Earth

**Annexure - 9**

~~16~~



**Kalinagar Sand Block**  
(2017\_DMBUW\_676)

- Legend**
- 2017\_DMBUW\_676
  - Distance between Saktigarh Station and Kalinagar Sand Block(2017\_DMBUW\_676)
  - Saktigarh Station

Google Earth

3 km





**Govt. of West Bengal**  
**Office of the Block Land and Land Reforms Officer**  
**Burdwan-II, at Borsul**

Memo No. 734 /BL&LRO/BDN-II/24  
To  
The Additional District Magistrate  
And  
District Land & Land Reforms Officer  
Purba Bardhaman

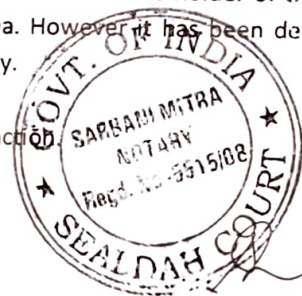
Dated: 11 / 06 /2024

**Sub:** Complaint against illegal extraction of sand mining on Damodar River  
**Ref:** Memo No. PBD-54015(99)/83/2024/MM/382 dt. 05/06/2024

Respected Sir,

With reference to the subject matter cited above this is to inform you that as per your kind instruction in Dist. Meeting dt. 21/5/2024 a joint inspection has been conducted on 30/5/2024 to verify and ascertain alleged matter of unauthorized mining of sand. It is to be mentioned here that a similar case had already been enquired and report had been sent to the ADM & DL & LRO, Purba Bardhaman vide memo no. 744 dt. 03/06/2024. It is evident from field enquiry that no mining was going on at the time of enquiry on that above mentioned plot. Respected SDL & LRO, Sadar(North) was present at the time of enquiry. Police personel of Saktigarh police station were also present at the suit area of the sand block. It is also mentioned here that Himangshu Santra was the earlier lease holder of this sand block. Sign of sand extraction was not evident over the alleged area. However it has been decided to keep close vigil time to time to combat unauthorised extraction if any.

This is for your kind perusal and taking necessary action.



11/06/24

Encl: As stated.

[Signature]  
13-06-24  
Officer-in-charge of  
Saktigarh P.S  
Purba Bardhaman.

[Signature]  
Block Development Officer  
Brdhaman- II at Borsul  
Block Development Officer  
Burdwan-II at Borsul  
Borsul, Purba Bardhaman

Block Land & Land Reforms  
Officer, Burdwan-II at Borsul  
Purba Bardhaman  
Block Land & Land Reforms Office.  
Bardhaman-II. at Borsul  
Dist.-Purba Bardhaman

1189  
7/6/24

File No. PBD-54015(99)/83/2024-L AND LR SEC

GOVERNMENT OF WEST BENGAL  
OFFICE OF THE DISTRICT LAND AND LAND REFORMS OFFICER  
PURBA BARDHAMAN  
P.O. RAJBATI, BARDHAMAN. PIN CODE: 713104  
Phone no.0342-2530641 e-mail:dloburdwan@gmail.com

Memo No: PBD-54015(99)/83/2024/MM/ 382  
To  
The Block Land & land Reforms Officer  
Burdwan-II, Purba Bardhaman.

Date: 05/06/2024

Sub:- Complaint against illegal extraction and transportation  
of sand.  
Ref:- Memo No -160-6L/WPB/2002 dated 24-04-2024.

Enclosed please find herewith a complaint received from Senior Law Officer, West Bengal  
Pollution Board, vide memo no referred above which is self explanatory.  
In this regard you are requested to cause a local enquiry (not below RO) along with  
representatives of Block Development Officer, Burdwan-II and Officer-In-Charge, Saktigarh  
Police Station and determine whether such illegal extraction of sand is taking place as  
alleged. An action taken report should be sent to this end for further necessary action by 7  
days.

Encl: As stated above.

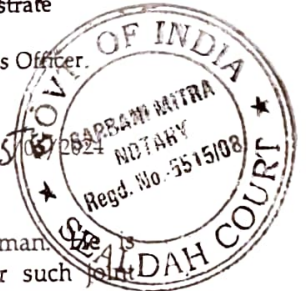
Additional District Magistrate  
And  
District Land & Land Reforms Officer,  
Purba Bardhaman.

Memo No: PBD-54015(99)/83/2024/MM/ 382/1 (1-1)  
Copy forwarded to:

Date: 05/06/2024

1. Dy. SP (HQ) & OC Sand Mining, Purba Bardhaman.
2. The Block Development Officer, Burdwan-II, Purba Bardhaman.  
requested to provide his representative (not below PDO) for such joint  
inspection.
3. The Officer-In-Charge, Saktigarh Police Station, Purba Bardhaman. He is  
requested to provide his representative (not below ASI) for such joint  
inspection
4. CA to the District Magistrate and Collector, Purba Bardhaman for kind  
appraisal of the District Magistrate and Collector.

Additional District Magistrate  
And  
District Land & Land Reforms Officer  
Purba Bardhaman



ADM(LR) EW018145990IN  
OC MM. Seeta

Get report from BURO/Bd 2 TL  
29/4/24

29-04-24

73/MM  
15/5/24



**LIFE**  
Lifestyle for Environment

**WEST BENGAL POLLUTION CONTROL BOARD**  
(Department of Environment, Government of West Bengal)  
Paribesh Bhawan, 10A, Block - LA, Sector III, Bidhannagar  
Kolkata - 700 106, Ph.: 2335-9088/8861/7428, Fax : 2335-2813  
Website: [www.wbpcb.gov.in](http://www.wbpcb.gov.in), Email: [net.wbpcb-wb@bangla.gov.in](mailto:net.wbpcb-wb@bangla.gov.in)

Memo No.: 160 - 6L/WPB/2002

Date: 24/04/2024



1339  
26/04/24

To  
The District Magistrate,  
Dist - Purba Bardhaman,  
Kachhari Road, Kalibazar,  
Burdwan - 713101.

**Sub : Illegal sand mining on Damodar River.**

**Re: Letter dated 07/04/2024 of Smt. Uttiya Ray, Advocate, High Court, Calcutta.**

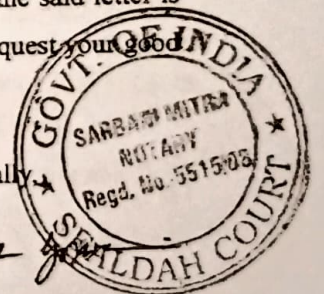
Sir,

State Board has received aforementioned letter / complaint alleging that one Himangshu Santra has been involved in illegal sand mining activity on Damodar River. Copy of the said letter is being forwarded herewith for your perusal. Undersigned has been directed to request your good office to look into the matter and take necessary action in accordance with law.

Yours faithfully

Amar Narayan

(Senior Law Officer)



Encl : As stated above

Pradipbaba for n/a  
15.05.2024

95

B.A. (Hons) LL.B.  
Advocate

Association, Room No.6  
High Court, Calcutta

EIM-A428  
22/04/2024

26 497 B  
12/04/24

Residence :  
Ray Bhavan' Mithapukur Lane  
Burdwan-713104  
: 9434009849

e-mail : uttiyalaw@gmail.com

Date : 07/04/2024

SLD  
May please  
2/10/24

To,

- 1) The District Magistrate, Purba Bardhaman
- 2) The District Land & Land Reforms Officer, Purba Bardhaman
- 3) The Chairman, State Level Environment Impact Assessment Authority  
Pranisampad Bhawan, 5<sup>th</sup> Floor, LB 2, Sector-III, Salt Lake, Kolkata-700106
- 4) The Chairman, West Bengal Biodiversity Board  
(Dept. Of Environment, Govt. of west Bengal.)  
Pranisampad Bhawan, 5<sup>th</sup> Floor, LB 2, Sector-III, Salt Lake, Kolkata-700106
- 5) The Chairman, West Bengal Pollution Control Board,  
Paribesh Bhavan, 10A, LA Block, Sector III, Bidhan Nagar, Kolkata - 700106
- 6) Block Land & Land Reforms Officer, Barsul
- 7) Chief Mining Officer, Mining Estate Branch, Court Road, P.O.-Asansol,  
Dist.- Paschim Bardhaman- 713304

Sub : Legal Notice apropos earlier representation dated 16.03.2024,  
pertaining to sand mining on Damodar river, in respect of Sand  
Block bearing I.D.- Burdwan-II/Kalinagar/181(P), 205(P) in  
Mouza- Kalinagar, Dist.-Purba Bardhaman-713424.

Dear Sir,

Under the instruction from and on behalf of the my clients, Debasis Biswas  
& Ors. being the local inhabitants/residents of Kalinagar, P.S.-Madhabdihi, Dist.-  
Purba Bardhamana, I, the undersigned do hereby beseech to draw your kind  
attention and put you under notice on the following :-

1. That one Himangshu Santra has been involved in illegal sand mining on  
Damodar River pertaining to the above-mentioned proposed sand block since a  
considerable period of time without obtaining valid EC/permission/No-objection  
from the competent authorities/persons.

2. That the said illegal sand mining activities in that area will have irreversible,  
irreparable and adverse impacts on the ecology and environment such as

*ya Ray* B.A. (Hons) LL.B.  
Advocate

ur Association, Room No.6  
High Court, Calcutta

Residence:  
'Ray Bhavan' Mithapukur Lane  
Burdwan-713104  
: 9434009849

e-mail : uttiyalaw@gmail.com

Date : 07/04/2024



-2-

destruction and erosion of river bank and disturbance in the aquatic habitat, critical imbalance in the ecosystem and biodiversity of the riverine zone which is already an arid and polluted area. Furthermore, the process of sand mining can result in the release of sediments into water body, negatively affecting the water quality and thereby subsequently adversely affecting particularly the aquatic life amongst various other devastating effects such as increased vulnerability to the impacts of climate change like floods and droughts.

3. That such sand mining will not only affect the ecological balance but also affect the lives of the local inhabitants by way of impediment in their usage of the river and river bank for social, cultural and religious congregation. They will also have to bear the burnt of drought and floods. Moreover, the sand mining will cause erosion, pollute water sources and subsequently reduce diversity in organisms especially of fishes, so the local fishermen who are fully dependent upon fishing, will face serious crisis in their livelihood.

4. That such starting and/or continuing of sand mining requires compliance of various rules and regulations. According to terms and conditions in the LOI, under Memo. No. 304/1287/Auction 17/MM/18, dated 26.11.2018, previously issued in favour of the said Himangshu Santra, the successful bidder should submit Environmental Clearance issued by DEIAA or SEIAA or MoEF & CC as the case may be as per Environment Impact Assessment Notification, 2006. The notification clearly mandates four stages in the Prior Environmental Clearance (EC) process for new projects –

Stage (1) Screening (Only for Category 'B' projects and activities)  
Stage (2) Scoping

97

*Ray* B.A. (Hons) LL.B.  
Advocate

Bar Association, Room No.6  
High Court, Calcutta

Residence :  
'Ray Bhavan' Mithapukur Lane  
Burdwan-713104  
Phone : 9434009849  
e-mail : uttiyalaw@gmail.com

Date : 07/04/2024

-3-

Stage (3) Public Consultation  
Stage (4) Appraisal.



But the said Himangshu Santra deliberately and desperately avoided the public consultation stage which is an utter violation of the provisions of the Environment Impact Assessment (EIA) Notification, 2006.

5. That highlighting the negative impacts in details of such unworthy and illegal sand mining, my clients, in the recent past, have conjointly raised serious objection before you authorities which was made by a written representation sent under speed post dated 16.03.2024, and delivered on 18.03.2024.
6. That though such written representation was reportedly received by your authorities and thereby you all are well aware of the grim situation that is prevailing in the area, no effective action has yet been taken in pursuance thereof till date.
7. That the said Himangshu Santra on the other hand is in the motion of carrying on with the alleged sand mining defiantly without following due process of law and without caring for the local ecology and its adverse effect on the local inhabitants. Your authorities although are aware of the same, are surprisingly sitting tight over the matter till date and thereby presumably giving undue indulgence to the aforesaid illegality in utter disregard to the rule of law.
8. That it is the obligation on the part of your authority to take all necessary steps to prevent such indiscriminate sand mining and as such it is further incumbent upon your authorities not to cause to issue Environment Clearance (EC) to the said Himangshu Santra in respect of the alleged sand block.

98

B.A. (Hons) LL.B.  
Advocate

ar Association, Room No.6  
High Court, Calcutta

Residence:  
'Ray Bhavan' Mithapukur Lane  
Burdwan-713104  
: 9434009849  
e-mail : uttiyalaw@gmail.com

Date : 07/04/2024

-4-

Under the above facts and circumstances, since your authorities have failed to take any proactive steps till date despite receiving the said joint objection of my clients, I am constrained to issue this notice entreating you to cause to make a thorough enquiry regarding the plausibility of initiating and/or continuing such alleged sand mining and further to initiate appropriate proceedings against the said Himangshu Santra in view of the aforesaid objection made by my clients. I do hereby call upon you to undertake such exercise and complete the same within a fortnight from the date of receipt of this notice and arrive at a logical conclusion regarding allowing/disallowing the alleged sand mining in the said area for larger interests and restrain your hands from causing to issue/grant any Environment Clearance/permission/No-objection to such sand mining. It is further expected that all efforts of such sand mining as allegedly have been undertaken by the said Himangshu Santra should be caused to be stopped forthwith. Failing so within a fortnight from the date of receipt of this notice, my clients shall be compelled to take legal recourse for which you shall have to face the consequences and costs as well.

Sincerely,

*Uttiya*



**BEFORE THE NATIONAL GREEN TRIBUNAL  
EASTERN ZONE BENCH, KOLKATA**

**ORIGINAL APPLICATION NO. 164/2024/EZ**

**DEBASIS BISWAS**

**.....APPLICANT(S)**

**VERSUS**

**THE STATE OF WEST BENGAL & ORS.**

**.....RESPONDENT(S)**

**COMMITTEE REPORT ON AFFIDAVIT FILED BY  
THE WEST BENGAL POLLUTION CONTROL  
BOARD.**

**SIBOJYOTI CHAKRABARTI  
ADVOCATE**