



स्टील अथॉरिटी ऑफ इंडिया लिमिटेड
STEEL AUTHORITY OF INDIA LIMITED
कोलियरीज डिवीजन, तामरा
COLLIERIES DIVISION, TASRA

Ref: GM/Tasra/EC (Comp-Mine)/March'25/ 72

Date: 27-06-2025

To,
The Additional Director(s),
EI Division, MOEF & CC,
Paryavaran Bhawan, CGO Complex,
Lodhi Road, New Delhi – 110003.

Sub: Status of compliance to the condition stipulated in the Environmental Clearance granted by MOEF for Tasra Coal Mining Project (4 MTPA), BSL-Collieries, SAIL for the period Oct' 2024 to March' 2025.

Ref: EC granted vide Ref. no. J-11015/122/2007-IA-II(M) dated 13th October, 2009.

Dear Sir,

Please find enclosed herewith the updated six monthly compliance report for the period Oct' 2024 to March' 2025 with respect to the condition stipulated in the Environment Clearance granted by MoEF & CC, New Delhi vide letter no. J-11015/122/2007-IA-II (M) dated 13th October, 2009 for Tasra Coal Mine Project of M/s Steel Authority of India Limited for kind perusal.

Thanking you,

Yours faithfully,
For Steel Authority of India Limited


(S. K. Kureshi)
General Manager (Tasra)
कोलियरीज डिवीजन
SAIL Collieries Division

Encl: As above

Copy to:

1. The Additional Director(s),
MOEF&CC (Govt. of India),
Integrated Regional office
2nd Floor, Headquater- Jharkhand State Housing Board,
Harmu Chock, Ranchi -834002
2. The Member Secretary
Central Pollution Control Board,
Parivesh Bhawan, CBD-Cum Office complex,
East Arjun Nagar, Delhi - 110032
3. The Member Secretary,
JSPCB, Township Administration Building,
Hee Complex, Dhurwa, Ranchi 834004.
4. The Regional Officer,
Regional Office, JSPCB, Dhanbad-826001.

- 1. Project Name-**Tasra Coal Mining Project (4 MTPA) of M/s Steel Authority of India Ltd, located in village Tasra, Kandra, Domgarh, Rohrabandh, Het Kandra, Chakchitahi and Chasnalla, in Jharia Coalfields, Dist. Dhanbad, Jharkhand.
- 2. EC Ref. No.-**J-11015/122/2007-IA.II(M), dated 13th October, 2009
- 3. Compliance Period-** October 2024 – March 2025

SPECIFIC CONDITIONS		
Sl.No.	Conditions	Compliance
i	The environmental clearance is restricted to opencast operations only. A separate application shall be submitted for environmental clearance for underground mining project proposed below 260 bgl.	Noted for compliance. Tasra Coal Mining Project is planned for opencast mining up to 260 m below ground level. The life of the mine is 28 years including 2 years of construction i.e. development period. Reserves below 260 m depth will be extracted by underground mining method for which a separate application will be submitted for grant of Environmental Clearance before underground mining operations are undertaken. Presently depth of open cast mine is 68 m only.
ii	An application for environmental clearance shall be made within 3 months for the establishment of a coal washery of 3.5 MTPA capacity proposed within the ML area.	1. There was no space available in the Mining lease area for installation of washery. Accordingly separate Environmental clearance of Washery was obtained on 30th March, 2017, EC granted vide Reference No. J-11015/365/2009-IA.II (M) pt. for installation of Tasra Washery on BSIDC land, the same land would not be transferred in the name of SAIL due to pending decision of assets distribution between Govt. of Jharkhand and Govt. of Bihar. 2. Fresh EC over FCIL land for installation of Tasra Coal Washery was obtained on 14th November, 2024 (Vide order No. vide letter no. EC24A0801JH5355205N dated 14th November, 2024). <i>Copy of EC is attached as Annexure-I.</i> During the deliberation of grant of EC the probability of installation of Coal Washery within the mining lease was not feasible (deliberation refer MoM of AGENDA FOR 6th MEETING OF THE EXPERT APPRAISAL COMMITTEE (COAL MINING SECTOR) meeting Coal Mining held from 17/01/2024 to 18/01/2024). <i>Copy of MOM of Agenda is attached as</i>

		<i>Annexure-II.</i> Local area was deliberated in absence of space, finally EC was granted for Installation of Washery over FCIL Land.
iii	Mining shall be carried out maintaining a minimum distance of 100m between the river Damodar and quarry edge along the northern boundary. The Embankment to be constructed along the River Damodar adjoining the quarry shall be based on peak flow data and shall be at least 3m above the HFL. The slope of the embankment shall atleast 2:1 towards the ML compacted and stone pitching done towards the river and shall be tested for strength before using for construction of embankment.	Presently, small scale mining activities is being carried out at a location 550 m from the riverbank. Mining activities shall be done maintaining 100 m distance from river edge throughout the project life. In this regard Director General Mine Safety (Ministry of Labour and employment) has issued permission for mining under Regulation 196(3) of the Coal Mines Regulations, 2017. As per regulation 149(6) (b) of CMR 2017, No working shall be made in any mine i.e. any spot lying within horizontal distance of 15 meters from either bank of River or Canal or from the boundary of lake, tank or other surface reservoir. DGMS permission along with plan superimposing the existing quarry over the approved mine plan showing the distances of river and nalla from approved mine plan is being attached. The construction of the embankment shall be constructed after the acquisition of private land along the river. In this regard, Application for acquisition of 225 acres of private land has been submitted to District Authority under LARR Act, 2013 for expansion of the mine which also includes the land required for construction of embankment. In this regard, 19.83 acres of land has been acquired, and it is expected that other intervening area will be acquired second quarter of 2026. Construction of embankment shall start by last quarter of 2026 & would progress as mine arrives with acquisition of fresh land & the construction would be completed by 2036. For this, IIT-ISM is conducting detailed study on the engineering and design aspects of the proposed embankment. Further as request to working of the mine without the embankment is carried out with due permission of DGMS. <i>Copy of DGMS Permission with layout and ISM work order is attached as <i>Annexure-III.</i></i>
iv	The plan for diversion and realignment of the Domohani Jore and Cilatu Jore and modification	Presently, small scale mining activities are being carried out at a location 825 m from the

	of the natural surface drainage and design of the diversion canal shall be following the natural topography of the region to be done in consultation and approval of the concerned State Flood and irrigation Department. Dimension and depth of the nala shall be finalized based on the peak flow of the water.	Domohani and Cilatu Jore. In this regard Director General Mine Safety (Ministry of Labour and employment) has issued permission for mining under Regulation 196(3) of the Coal Mines Regulations, 2017. As per regulation 149(6) (b) of CMR 2017, No working shall be made in any mine i.e. any spot lying within horizontal distance of 15 meters from either bank of River or Canal or from the boundary of lake, tank or other surface reservoir. DGMS permission along with plan superimposing the existing quarry over the approved mine plan showing the distances of river and nalla from approved mine plan is being attached. Comprehensive study for the proposed diversion and realignment is being undertaken by IIT-ISM, Dhanbad. Further it is submitted that it would take at least 8 to 10 years for the mine to progress from its existing location to the location i.e. 15 meter of Domohani Jore and Cilatu Jore. Jore would be diverted before that and soon after the land is acquired. <i>Copy of DGMS Permission with layout and ISM work order is attached as Annexure-III.</i> Google time map from the date of granting of EC of the project till date to find the changes in house construction in residential area within the awarded land for the mining. <i>In this regard Google Map of the area is attached as Annexure-IV.</i>
v	Topsoil shall be stacked properly with proper slope at earmarked site(s) and shall not be kept active and shall be used within a year of generation of reclamation and development of green belt.	Being Complied. Top soil being generated is stacked at a separate available site near OB dump. Permanent site for staking top soil would be available after land acquisition. Land acquisition is under process and would be made available by quarter end of 2025 & thereafter the present top soil would be re-handled & dumped at that location. Protective measures for soil erosion from top soil dump i.e. catch drain & a siltation pond is constructed around the top soil dump. The stacked top soil will be utilized for green belt development and reclamation purpose. <i>Photographs are attached as Annexure-V.</i>

vi	OB shall be stacked at earmarked external OB dumpsite within ML area of a maximum height of 90m of 3 benches of 30m each. A garland drain of adequate capacity and toe wall along the OB dump shall be created to arrest the silt flow from the dumps. In addition to the garland drain, a separate 4-6m channel serve as storm water drain shall also be created all along the mine based on peak flow data. Silt arrestors shall be constructed for both garland drain and storm water drain and the drains shall be regularly desilted. Toe wall shall be constructed at the base of the dumps. The dumps shall be strengthened at critical patches with stones and compacted. Plantation using native species shall be developed between the dump and River Damodar. For reclamation of dumps and quarry with plantation, no chemical fertilizers shall be used. The ultimate slope of the dump shall not exceed 28°. Reclamation of the OB dump of an area of 168.47 ha with vegetation shall be completed by 10th year. Monitoring and management of reclaimed dumpsite shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional office located at Bhubaneshwar on a yearly basis.	Being Complied. OB dumping is being done as per the approved mine plan at the earmarked place. Some portion of dumping has been used to fill up the old abandoned mine previously worked by M/s BCCL, lying well within the earmarked OB dump area. As directed, a portion of the large water body has been left to act as a source of water for project and also act as groundwater recharge. The OB dump area is surrounded by garland drains/Catch drains with silt arresters constructed along its periphery. <i>Photographs are attached as Annexure-V.</i> Plantation is being done using native plants only. It has been proposed to plant around 2500 plants in the intervening area around the dump and river. Previously, SAIL, in collaboration with the Forest Department of Dhanbad, had initiated a plantation project along the northern bank of the Damodar River. Further, reclamation of OB dump would be undertaken after external OB dumping will be completed by 2030.
vii	Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flows from soil, OB and minerals dumps. The water so collected shall be utilized for watering the mine area, roads, green belt development, etc. The drains shall be regularly desilted and maintained properly. Garland drains (size, gradient and length) and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper setting of silt material.	Complied. Catch Drain has been constructed along the southern side of the OB dump and the surface runoff from the OB dump is channelized in the old abandoned quarry. Catch drains terminate into siltation pond to arrest suspended solids from dump area. Moreover, drains are regularly desilted for smooth functioning. The old quarry is used for collection of rainwater at mine pit which is reused for sprinkling, tyre washing, plantation, etc.
viii	Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.	Catch Drain has been constructed all along the OB dump and the surface runoff from the OB dump is channelized in the old abandoned quarry A certain height retaining structure has been

		constructed using the OB to secure the sliding, if any. <i>Photographs are attached as Annexure-V.</i>
ix	The main approach roads shall be black topped. A 3-tier avenue plantation shall be developed along the main approach roads and haul roads. Entire mineral transportation shall be by rail mode only. Mineral transportation from the mine to the Railway siding shall be by closed belt conveyor only. The Railway siding shall be provided with Silo Rapid Loading System.	The mine is currently in its developmental stage; hence, the construction of permanent roads in the mining area is presently not feasible, as the areas designated for haul roads fall within the future mining zone, and no decoaled land is available in and around the mining lease for establishing permanent road infrastructure at this stage. Construction of black topped road till highway is in progress. However, due to early onset of monsoon construction has not completed. All other approach and haul roads are being regularly maintained using graders, and a continuous water sprinkling system has been implemented for effective dust suppression. Upon full development of the mine, permanent approach roads will be established. Subsequently, a three-tier avenue plantation will be developed along the main roads and haul roads to enhance green cover and control air pollution. The construction of the coal washery is currently underway, coal is temporarily being transported in trucks covered with tarpaulin to prevent dust emissions. Upon commissioning of the coal washery, raw coal from the CHP will be conveyed to the washery through a closed belt conveyor system. The washed coal will subsequently be transported to steel plants via rail. A dedicated railway siding with a silo-based rapid loading system has been proposed to facilitate this transportation.
x	Drills shall be wet operated only.	Being Complied. Drills are fitted with wet drilling arrangement.
xi	Controlled blasting shall be practiced with use of delay detonators. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders shall be implemented.	Being Complied. Controlled blasting operations are carried out using delay detonators to ensure precision and safety. All necessary mitigative measures adopted to control ground vibrations and prevent the dispersion of fly rocks and boulders.
xii	Water sprinkling system shall be provided to check fugitive emissions from crushing operations, conveyor system, haulage roads, transfer points,	Being Complied. Water sprinkling systems adopted to control the dust emissions arising from mine operations.

	etc. Hoppers of the coal crushing unit and washery unit shall be fitted with high efficiency bag filters and mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points and at Railway Siding.	
xiii	No groundwater (bore well) shall be used for mining operations. Additional water if any required for the project shall be used from recycled water or mine discharge water or rainwater collected in rainwater harvesting pits within the project area.	Being Complied. No borewell has been constructed for mine operations. All the water requirements related to mine operations met from old quarry of BCCL acting as water harvesting and mine pit dewatered water.
xiv	Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity shall be done four times a year in pre-monsoon (May), Monsoon (August), Post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected shall be submitted to the Ministry of Environment & Forest and to the Central Pollution Control Board quarterly within one month of monitoring. Rainwater structures shall be erected in the core and buffer zone, in case monitoring indicates a decline in water table.	Being Complied. Piezometer is installed for continuous GW level monitoring. Quarterly monitoring of GW is being done by NABL accredited laboratory M/s Aditi R&D Service. <i>Copy of monitoring reports is enclosed as Annexure-VI.</i> Presently, old abandoned quarries (of M/s BCCL) in the Tasra Opencast Project act as collection pit for GW recharge. Catch drains constructed all along the dump area has been channelized to the old quarry. Additionally, 32 no.s of RWH pits are also constructed at Tasra/Chasnalla coal complex area at Chasnalla.
xv	The project authorities shall meet water requirement of nearby villages(s) in case the village wells go dry due to dewatering of mine.	Being complied. As a part of our CSR programme, drinking water and domestic use water is distributed in the nearby village. Moreover, since mining is being done at very small scale, there is no significant GW depletion has been observed in the area. The GW level is being monitored through the piezometer installed near the mines area.
xvi	Sewage treatment plant of adequate capacity shall be installed in the colony. ETP shall also be provided for workshop and CHP wastewater. Treated wastewater meeting prescribed norms only shall be recycled for mining operations to the extent possible and permitted to be discharged into the natural water courses only if it meets the	Complied. - A ETP of 30 KLD has been installed to cater the waste water coming from workshop as well as water from washing platforms. - Currently, the treated water is used for secondary purposes like dust suppression, washing of HEMM, plantation, etc.

	prescribed standards.	Proposal has been made against the MDO for STP construction as part of R&R development. It will develop as one of the amenities provided in the R&R colony. <i>Photographs are attached as Annexure- V.</i>
xvii	The total area that shall be brought under afforestation at the time of mine closure shall not be less than 444.49 ha which includes reclaimed topsoil dump area, external OB dump (168.47 ha), backfilled area (276.02 ha), along ML boundary, embankment and undisturbed area, along roads and infrastructure, green belt, and in township outside the lease by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 per ha.	Noted for compliance
xviii	A progressive Mine Closure plan shall be implemented by reclamation of 276.02 ha, of the total quarry area of 371.33 ha, which shall be backfilled and afforested by planting native plant species in consultation with the local DFO/Agriculture Department. The density of the plants shall be around 2500 plants per ha. The balance 95.31 ha of de-coaled quarry area being converted into a water reservoir shall be gently sloped and the upper benches of the reservoir shall be terraced and established with plantation. Only native species shall be used for plantation.	Noted for compliance. Mine closure activity is elaborated in the approved Mining Plan (2008). Pending preparation of separate Mine Closure Plan as required under statute, the amount on account of Mine Closure Activity is being deposited in Escrow account based on the tripartite agreement made between SAIL, Office of Coal Controller Kolkata, and IDBI Bank on 15.09.2017. Mine Closure cost is being deposited in Escrow account for Tasra OCP year on year Total amount deposited Rs. 2579.64 Lakhs (Period FY 2017-18 to 2024-25 (till May, 2025). Consultant for preparation of Mine Closure Plan M/s Reval has been appointed after necessary preparation it is intimated that mine closure plan would be placed before competent Authority for approval by the end of 2026.
xix	Besides carrying out regular periodic health checkup of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health checkup for occupational diseases and hearing impairment, if any, through an agency such as NIOH, Ahmedabad within a period of one year and the results reported to this Ministry and to DGMS.	Being Complied. Mine workers periodically undergo for health checkup by appointed qualified occupational health doctor as per DGMS Norm. No worker of Tasra OCP has been found to have occupational diseases or hearing impairment during a health check-up. Periodic training on health & safety also provided to train them. Workers are provided with PPE and time to time

		training on safety and health aspects were provided. The mine still being development stage the appointment of Agency such as NIOH would be taken up subsequently. <i>IME/PME data are attached as Annexure-VII.</i>
xx	An amount of Rs 600.60 lakh as capital costs and Rs 35 lakhs towards annual recurring costs has been earmarked for environmental protection measures, the details of which shall be uploaded on the company's website every year.	Assure to comply. Environmental protection measures are being carried out as per EIA/EMP submitted. Till now, a capital of Rs.2127 has been spent against 600.60 lakhs as outlined in EMP. <i>The list of year wise cost incurred under EMP is attached as Annexure-VIII.</i>
xxi	A detailed R&R plan for the life of the project comprising land losers, homestead losers and land and homestead losers, and landless including tribals to be displaced from the project area shall be prepared and implemented in a stipulated time-frame. A master plan for the R&R colony and a specific plan for phase-I consisting of 1642 PAFs shall be prepared within 2 months from date of environmental clearance along with a time schedule for completion of activities including construction of R&R colony and completion of various works for civic amenities in the colony. R&R shall include setting up of an ITI for training and skill development amongst the persons to be employed and those not being absorbed for vocational training for alternate livelihood, particularly simulation training for various skills, which may be for indirect employment. Annuities for the vulnerable persons being displaced shall also be included in R&R. Persons affected by double/ triple displacement shall be compensated as per norms. R&R for phase-I shall be completed within a year of grant of environmental clearance. A Sub-Committee comprising of 3 experts of the Expert Appraisal Committee shall monitor the compliance of implementation of phase-I of the R&R and beyond, if required.	• MDO has already initiated process to acquire land for R&R of PAFs. An area of 16.60 ha of private land at Asanbani is in its final stage of acquisition. • Master plan for construction of R&R colony for 1642 PAFs has been prepared under Phase-I and implementation will follow after the completion of the land acquisition process. The master plan is well equipped with all the basic amenities like water, electricity, sanitation, road etc. • Previously, a detailed land survey was conducted by the District Administration under the provisions of the RFCT in LARR Act, 2013. • Public hearing on the draft R&R Policy scheme was already held by DC, and the R&R Scheme was subsequently approved on 05.10.2016. • Following a new preliminary notification for land acquisition, a revised R&R Scheme was also formulated by the R&R Administrator and approved by the Government of Jharkhand. • All R&R activities related to the project, including establishment of the R&R colony, will be undertaken in accordance with the approved R&R Plan by the competent authority. • Socio-economic survey of the seven mouzas was carried out by Project & Development India Limited (PDIL) in 2009. As per PDIL

		report, there were 3455 nos. of Project Affected Families (PAFs). Based on PDIL Report'2009, R&R scheme for PAFs for Rs.219.53 Crore was approved by SAIL Board in its meeting held on 17 .03.2010.
xxii	Peripheral villages of Parasbani, Chhattabad, Orbeta, Kultar, Sindri Basti, Manohar Tand Basti, Chasnalla Basti, Manpur, Jharna, Bogla, and Chandaniyari shall be taken for Socio-Economic Activities under CSR, for which a sum of Rs 65 crores shall be earmarked as capital costs and Rs 4 crores as revenue costs over the life of the project. The proponent shall constitute VDC for monitoring the implementation of CSR. In addition, the sub-committee of EAC shall also monitor CSR, if required.	The constitution of VDC is under progress. Although CSR activities are being carried out in the project affected area of Tasra Project after consultant of project affected persons. <i>Details of CSR activities under CSR Scheme for (FY 2024-25) are enclosed as Annexure- IX.</i>
xxiii	The project authorities shall carry out a detailed pre-mining socio-economic survey based on the UNDP Human Development Report and Quality of Life Parameters and monitor the socio-economic status once every three years and maintain records thereof and report in their Annual Report, the socio-economic impact of R&R and CSR activities, the details of which shall be uploaded on the company's website every year. A post of GM to exclusively look after R&R and CSR shall be created.	Noted for compliance. A comprehensive socio-economic survey based on the UNDP Human Development Report and Quality of Life Parameters of the affected mouzas was conducted by Project & Development India Limited (PDIL) in 2009. As per the PDIL report, 3,455 Project Affected Families (PAFs) were identified. Based on the findings and recommendations of this survey, a detailed Rehabilitation and Resettlement (R&R) Scheme amounting to ₹821.48 Crore was formulated and subsequently approved by the SAIL Board in its meeting held on 09.02.2022.
xxiv	For monitoring land use pattern and for post mining land use, a time series of landuse maps, based on satellite imagery (on a scale of 1:5000) of the core and buffer zone from the start of the project until end of mine life shall be prepared once in 3 years (for any on particular season which is consistent in the time series), and the report submitted to MoEF and its Regional office at Bhubaneswar.	There is no significant change in land use pattern due to mining activity as mining is limited to 50 Acres only. <i>Satellite image of time series of land use map of project area is attached as Annexure-IV.</i>
xxv	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests 5 Years in advance of final mine closure for approval.	Assure to comply. It is under process.
GENERAL CONDITIONS		
i	No change in technology and scope of working	Noted for compliance.

	shall be made without prior approval of the Ministry of Environment and Forests.	Application for amendment in EC will be submitted if any change or modification is proposed.
ii	No change in the calendar plan including quantum of mineral coal and waste being produced shall be made.	Noted for compliance. Production of coal and OB will be strictly as per the approved mine plan.
iii	Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring SPM, RSPM, SO ₂ and NO _x . Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, in SPM and RSPM etc. shall be carried out at least once in six months.	Being Complied. A total of 12 locations have been identified for AAQ monitoring in the Tasra Project. It is being done quarterly by NABL Accredited/ISO9001:2008 and OHSAS 18001:2007 certified & JSPCB recognized laboratory M/s Aditi R&D Services for particulate matters, SO _x & NO _x . Samples are taken from established stations in core and buffer zone of mine. Moreover, CAAQMS is installed at the mine area for continuous monitoring of air quality. The CAAQMS is also attached to the JSPCB server enabling for remote monitoring. <i>The Quarterly monitoring of heavy metal is being done, the report is attached as Annexure-VI.</i>
iv	Data on ambient air quality (SPM, RSPM, SO ₂ and NO _x and heavy metals such as Hg, As, Ni, Cr etc.) and other monitoring data shall be regularly submitted to the Ministry including its Regional Office at Bhubaneswar and to the State Pollution Control Board and the Central Pollution Control Board once in six months. Random verification of samples through analysis from independent laboratories recognized under the EP Rules, 1986 shall be furnished as part of the compliance report.	Being Complied. Monitoring of Environmental parameters is being carried out by NABL Accredited/ISO9001:2008 and OHSAS 18001:2007 certified lab M/s Aditi R&D service (Recognized by Jharkhand State Pollution Control Board), Sindri, Dhanbad and are regularly submitted to RO & JSPCB through email.
v	Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.	Being Complied. To control the noise level in mines area, following are few measures adopted. Controlled blasting, PUC certified vehicles, Regular servicing of vehicles, etc. Green belt development Moreover, PPE kits including ear muffs are also provided to all mine works to reduce hazards associated to noise pollution.
vi	Industrial wastewater (workshop and wastewater	Complied.

	from the mine) shall be properly collected and treated so as to conform to the standards including for heavy metals before discharge prescribed under GSR 422 (E) dated 19 th May 1993 and 31 st December 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.	A 30 KLD ETP has been installed at the mines area to cater the wastewater from HEMM. ETP is equipped with sedimentation pit along with oil and grease trap. The treated water from the ETP is then reused for washing purposes.
vii	Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transportation of the mineral shall be covered with tarpaulins and optimally loaded.	Being Complied. Vehicles used are well serviced regularly & covered with tarpaulins while transporting minerals.
viii	Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with State Pollution Control Board and data got analyzed through a laboratory recognized under EP Rules, 1986.	Being Complied. The monitoring of environment quality parameters is duly monitored by NABL Accredited/ISO9001:2008 and OHSAS 18001:2007 certified lab M/s Aditi R&D Service (Recognized by JSPCB) Sindri, Dhanbad.
ix	Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects. Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed.	Being Complied. Mine workers periodically undergo for health checkup by appointed qualified occupational health doctor. Personal protection kits are also provided to all workers to protect from adverse effect of mines activities. Periodic training on health & safety also provided to train them. Additionally, tool box talks are conducted to inform workers for safe workplace.
x	A separate environmental management cell with suitable qualified personnel shall be set up under the control of a senior executive, who is report directly to the head of the company.	Being Complied. Separate Environmental Management Department has been set up and headed by GM (Environment) who reports directly to the Head of the Mine and also DGM (Environment) appointed at Tasra Project Level. In addition, SAIL has a dedicated Corporate Environment Management Division in Kolkata, headed by the Executive Director, which facilitates the environmental management of all SAIL units.
xi	The funds earmarked for environmental protection measures shall kept in separate account and shall not be diverted for other purpose. Year wise expenditure shall be reported to this Ministry and it's Regional Office Bhubaneshwar.	Being Complied.

xii	The project authorities shall advertise at least in two local newspaper wisely circulated around the project, one of which shall in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and may also be seen at the website of the ministry of Environment and Forest at http://envfor.nic.in	Already Complied.
xiii	A copy of the environmental clearance letter shall be marked to concerned Panchayat/Zila Parishad, Municipal Corporation or Urban Local Body and Local NGO, if any, from whom any suggestion/representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on the company's website.	Already Complied.
xiv	A copy of the clearance letter shall be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.	Already Complied.
xv	The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in the public domain. The monitoring data of environmental quality parameters (air, water, noise and soil) and critical pollutants such as SPM, RPM, SO ₂ and NO _x (ambient and stack if any) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mines office and in corporate office and on the company's website.	Being Complied. Six-monthly compliance updates for the Tasra Coal Mine are regularly posted on the SAIL website. Additionally, monitoring results are displayed at the mine entrance and office for public viewing. Furthermore, continuous air quality data from the CAAQM installed at the mine is shown on an LED board. <i>Photographs are attached as Annexure- V.</i>
xvi	The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions (both in hard and in e-mail) to the respective Regional Office of the MoEF, the respective Zonal offices of CPCB and SPCB.	Being Complied. Six monthly compliance report is being submitted periodically to RO & Ministry.
xvii	The Regional Office of this Ministry located at Bhubaneshwar shall monitor compliance of the stipulated conditions. The project authorities shall	Noted for compliance.

	extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/ information/ monitoring reports.	
xviii	The environmental statement for each financial year ending 31 st March in Form – V is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MoEF by E-mail.	Being complied. Environment Statement is being regularly submitted to JSPCB & Ministry for each financial year. The same is also updated on SAIL website. The latest Form-V for FY 2023-24 is submitted to JSPCB on 16.09.2024. <i>The report is enclose as Annexure-X</i>

ANNEXURE - I



File No.: J-11015/122/2007-IA.II(M)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division



Dated 14/11/2024



To,

Sh. Tarun Kanti Roy
M/s STEEL AUTHORITY OF INDIA LTD
ISPAT BHAWAN, LODI ROAD, DELHI, NEW DELHI, DELHI, 110003
E-mail: parivesh_sail@sail.in

Subject: Tasra Coking Coal Washery (Area 21 Ha having capacity of 3.5 MTPA) by M/s Steel Authority of India Ltd. located at Village: Rohraband; District: Dhanbad; State: Jharkhand – Grant of Environmental Clearance-Regarding

Sir/Madam,

This is in reference to your application submitted to MoEF&CC vide proposal number IA/JH/CMIN/495669/2024 dated 26/09/2024 for grant of prior Environmental Clearance (EC) to the project under the provision of the EIA Notification 2006-and as amended thereof.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC24A0801JH5355205N
(ii) File No.	J-11015/122/2007-IA.II(M)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	2(a) Coal washeries
(vi) Sector	Coal Mining
(vii) Name of Project	Tasra Coking Coal Washery Plant of M/s. Steel Authority of India Limited with 3.5 MTPA capacity of 21 Ha area, located at FCIL Campus, Town – Sindri, District-Dhanbad, Jharkhand.
(ix) Location of Project (District, State)	DHANBAD, JHARKHAND
(x) Issuing Authority	MoEF&CC
(xii) Applicability of General Conditions	No

3. M/s Steel Authority of India has made an online application vide proposal no. IA/JH/CMIN/495669/2024 dated 26.09.2024 along with copy of EIA/EMP report, Forms (Part A, B and C) seeking environmental clearance under the provisions of EIA Notification, 2006 for the project mentioned above.

4. The proposed project activity is listed at item No. **2(a) – Coal Washeries under Category ‘A’** of the schedule of the EIA Notification, 2006 and appraised at Central Level.

5. The instant Proposal was considered by the EAC (Coal) in its 16th meeting held during 8 – 9th October, 2024. The PP has uploaded the written information on 23.10.2024. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed at <https://parivesh.nic.in>.

Details submitted by the project proponent

6. The proposal is for Environment Clearance of Tasra Coking Coal Washery (Area 21 Ha having capacity of 3.5 MTPA) by M/s Steel Authority of India Ltd. located at Village: Rohraband; District: Dhanbad; State: Jharkhand.

7. The details of the ToR are furnished as below:

Proposal No/ Date of application	Consideration by the EAC	Date of accord	ToR validity
IA/JH/CMIN/455615/2023 15/12/2023	8 th EAC meeting held on 28-29th February 2024	12.04.2024	11.04.2028

8. **Environmental site settings:** The washery is covered under Survey of India Topo Sheet No. 73 I/6 (F45C6) and is bounded by the geographical coordinates ranging from Latitude 23°39'37. 22"N to 86°28'59.45"N and Longitude 23°39'51.23"E to 86°29'15.52"E.

Project does not fall in the Critically Polluted Area (CPA)/ Severely Polluted Area (SPA), as per CEPI Assessment, 2018. This aspect has also been verified and confirmed through DSS.

Forest Area: PP submitted that the project does not involve any forest land. This aspect has also been verified and confirmed through DSS.

Protected Area: PP submitted that The project is not located within 10 KM of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor/elephant corridor etc. However, there is one small unnamed protected forest, that exists at a distance of 9.5 km from the project site.

Schedule – I species: PP submitted that Schedule – I species were observed in the study area and accordingly, a Wildlife Conservation Plan has been prepared and submitted to the DFO, Dhanbad for approval on dated 30.08.2024, subsequently some observation was raised and revised WLCP was submitted on 21.09.2024.

Project Area: PP submitted that the proposed coal washery including railway siding will be situated over an area of 21 Ha of land. The land is industrial land and the same is owned by The Fertilizer Corporation of India Limited (FCIL). In Principle Approval for utilizing the 21 ha has been accorded by the FCIL Board vide letter dated 20.11.2023.

9. Salient features of the project:

i. SAIL has intended to set up a Coal Washery of the annual capacity of 3.5 MTPA near to Tasra Open cast Coal Mine for supply of clean coal and middling to their Steel Plants and Captive Thermal Power plants, respectively.

ii. The raw coal requirement (35,00,000 TPA) for the proposed washery will be met from Tasra Coal Mine of Steel Authority of India Ltd. (SAIL) located at a distance of 2km through Cross Country Conveyor.

iii. The proposed coal washery is (having capacity of 3.5 MTPA) is a new project. Washery including railway siding will be situated over an area of 21 Ha. The land is industrial land and the same is owned by The Fertilizer Corporation of India Limited (FCIL).

iv. The washery has been planned to produce two products i.e. clean coal and middling. The washing process for the washery has been selected on the basis of qualitative requirement of clean coal for utilizing in steel plant i.e. 17% ash. The middling will be utilized in Captive Power Plants of SAIL.

v. Transportation of Clean Coal (Coking Coal & Middling) by Rail. Railway siding with take-off point from the Dhanbad-Sindri line of Eastern Central Railway (ECR) proposed.

- vi. Type of Coal Washery: It is a Wet Process (based on Heavy Media Cyclones and Froth Flotation) coal washery.
- vii. No reject will be generated from the washery. It is a two-product washery, prime product being clean coking coal and the secondary product being middlings which will also be used in SAIL Power Plants.
- viii. Transportation: Transportation of raw coal will take place by conveyor and transportation of washed coal (clean and middlings) will take place by rail.

ix. Details of land use:

S. No.	Details	Area in Ha	% w.r.t. Total Area
1.	Main Plant Area	2.52	11.99
2.	Storage Area for Coal Stock	6.23	29.68
3.	Water Reservoir	0.62	2.94
4.	Green Belt	6.93	33.00
5.	Internal Roads	2.12	10.09
6.	Parking Area	1.48	7.05
7.	Misc Area	1.11	5.26
	Total	21.00	100.00

- x. To operate and maintain the washery plant a total manpower of 166 is required to be directly employed.
- xi. The project site is at a distance of 0.2 km from the Sindri Town Railway Station, 76 km from Kazi Nazrul Islam Airport – Durgpur and 28 km from town Dhanbad.

10. Legal issues/ Violation: PP submitted that there is no legal issue/violation wr.t i) Environment (Protection) Act, ii) Air(P&CP) Act, Water (P&CP), Act, Van (Sanrakshan Evam Samvardhan) Adhiniyam, Wildlife Protection Act, MMDR Act, Factories Act. Further, there is no court case on the project.

11. Water Requirement: PP submitted that the water requirement will be 966 m³/day and the source of water will be Mine Pit water from the Tasra Coal Mine and there is no ground water intersection involved for the instant project. Application for NOC has been submitted to CGWA vide application no. 21-4/2006/JH/MIN/2024 dated 24.08.2024. PP also submitted that the process of the proposed washery is based on closed water circuit system. Hence, there will be zero liquid discharge. Further, there is no diversion of river/ nallah proposed.

12. Power Requirement: PP submitted that the total power requirement for the project will be 7.5 MVA, which will be sourced from a nearby substation of Jharkhand Bijli Vitran Nigam Limited (JBVNL) through overhead transmission line. Further, PP submitted that there is no diversion of Hi-Tension/ Transmission Line for the proposed washery.

13. Baseline Data: Environmental Baseline data has been collected during October to December 2023 (Post Monsoon):

Period	October to December 2023 (Post Monsoon)
AAQ parameters for 10 Locations (min and max)	PM ₁₀ – 64.27 to 77.18 µg/m ³ PM _{2.5} – 40.95 to 52.28 µg/m ³ SO ₂ – 10.68 to 17.80 µg/m ³ NO _x – 11.50 to 30.95 µg/m ³ CO – 0.42 to 0.94 mg/m ³
Increment I GLC Level	PM ₁₀ – 2.05781µg/m ³ (Level at 0 km in N Direction) PM _{2.5} – 1.32288µg/m ³ (Level at 0 km in N Direction) SO ₂ – 0.16169µg/m ³ (Level at 0 km in N Direction) NO _x – 0.17932 µg/m ³ (Level at 0 km in N Direction) CO – 0.0000011 mg/m ³ (Level at 0 km in N Direction)
Groundwater Quality for 10	pH– 7.11 to 7.96 Total Hardness– 189.5 to 265.0 mg/l

Period	October to December 2023 (Post Monsoon)
Locations	Chlorides– 43.47 to 54.28 mg/l Fluoride– 0.23 to 0.33 mg/l
Surface water Quality for 10 Locations	pH– 7.41 to 7.88 DO– 5.3 to 6.3 mg/l BOD – 17.0 to 27.0 mg/l COD – 56.0 to 82.0 mg/l
Noise levels Leq (Day and Night)	42.35 to 63.48 dB for the daytime and 34.62 to 52.75 dB for the Night time.
Traffic Assessment study findings	No transport of raw coal or clean coal is envisaged by road. Raw coal from the Tasra mine shall be transported through the cross-country Conveyor. Clean coal from the Washery shall also be transported by rail to the end users at SAIL Steel Plants and Power Plant. Hence, there will be no impact on the existing road network due to the project. No transport of raw coal or clean coal is envisaged by road. Raw coal from the Tasra mine shall be transported through the cross-country Conveyor. Clean coal from the Washery shall also be transported by rail to the end users at SAIL Steel Plants and Power Plant. Hence, there will be no impact on the existing road network due to the project.
Flora and fauna	Following schedule I species were observed in the study area: Mammals Bengal Fox (<i>Vulpes bengalensis</i>), Golden Jackal (<i>Canis aureus</i>) Jungle Cat (<i>Felis chaus</i>) Indian Grey Mongoose (<i>Urva edwardsii</i>), Small Indian Civet (<i>Viverricula indica</i>) Birds Brahminy Kite (<i>Haliastur indus</i>), Eurasian Marsh Harrier (<i>Circus aeruginosus</i>), Red Headed Vulture (<i>Sarcogyps calvus</i>), Shikra (<i>Accipiter badius</i>), Indian Peafowl (<i>Pavo cristatus</i>) Reptiles Indian Chameleon (<i>Chameleon zeylanicus</i>), Indian Rat Snake (<i>Ptyas mucosa</i>) Indian Cobra (<i>Naja naja</i>), Indian Python (<i>Python molurus</i>), Indian Flapshell Turtle (<i>Lissemys punctate</i>), Bengal Monitor (<i>Varanus bengalensis</i>) Russells's Viper (<i>Daboia russelii</i>) Wildlife conservation Plan has been prepared and submitted to the DFO, Dhanbad for approval on dated 30.08.2024, subsequently some observation were raised and revised WLCP was submitted on 21.09.2024. Budget of Rs. 1624.23 Lakhs has been allocated by M/s SAIL for the protection and conservation of the Schedule-I Species
Water Requirement	Source of Water: Mine pit water from Tasra Coal Mine through pipe lines. Ground Water Intersection: No Water Requirement: 966m ³ /day NOC (Ground Water): CGWA NOC application has been submitted vide application no. 21-4/2006/JH/MIN/2024 dated 24.08.2024

14. Solid and Hazardous Waste: PP submitted the details of Solid and Hazardous waste generation along with its mode of treatment/ disposal is furnished as below:

S. No.	Type of Waste	Source	Quantity (TPA)	Mode of Treatment	Disposal	Remarks
1.	Domestic Waste	Persons Employed for washery operations	13.2	Re-cycling	Human wastes through STP & food waste will be composted.	Solid Waste
2.	Used oil	Machinery	0.5	Authorized Vendors	To be sold to authorized Recycle	Hazardous waste
3.	Battery Waste	Vehicles at sites	0.4	Re-cycling	Sold to authorized Vendors/ Recycler	Battery Waste

15. EMP Cost: PP submitted that the capital cost for environmental protection measures is proposed as Rs 36.1965

Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 1.0571 Crores. The details of cost for environmental protection measures are as follows:

S. No.	Environmental Protection Measures	Capital Cost Rs. In Lakhs	Recurring Cost Rs. In Lakhs/Year
1.	Air Pollution Control Measures		
	Bag Filter	110.0	1.5
	Dry Fog Dust Suppression systems at Conveyor Transfer Points	30.0	2.5
	Fixed Water Sprinklers	25.0	2.5
	Mobile Water Sprinklers	15.0	1.5
	Fog /Mist Canon	40.0	3.0
	Provision of Wind Barriers	15.0	1.0
	Mechanical Sweeping M/c	65.0	5.0
	Sub Total (A)	300.0	17.0
2.	Water Pollution Control Measures		
	Rain Water Harvesting	100.0	10.0
	Coagulants for Thickeners	--	30.0
	STP 10 KLD	40.0	4.0
	Sub Total (B)	140.0	44.0
3.	Noise Pollution Control Measures		
	Acoustic Paneling for DG House	30.0	1.50
	Rubber Liners for Chutes, Classifier etc.	30.0	3.0
	Sub Total (C)	60.0	4.50
4.	Storage and Solid Waste Management		
	RCC flooring for Stock Piles of Clean Coal and Middling to avoid leaching	50.0	2.5
	Concrete platform with bund wall and oil collection system for storage of HSD, and Used Oil	5.0	1.5
	Sub Total (D)	55.0	4.0
5.	Environment Monitoring Program		
	Installation of 1 no. of CAAQMS, and 1 no. of Web Camera at Plant Outlet	60.5	5.05
	Post Project Monitoring - Cost of monitoring of environmental parameters for Ambient Air, Fugitive Emission, Stack emissions, Effluent, Ground water quality, Ambient & Work Zone Noise Levels monitoring, Efficiency Monitoring of Pollution Control equipment	--	3.66
	Periodical Medical Examination of Workers	--	1.5
	Sub Total (E)	60.5	10.21
6.	Occupational Health & Safety	19.5	24.0
7.	Greenbelt Development	83.16	8.0
8.	Ecology & Bio-diversity (Wildlife Conservation Plan)	1624.23	
9.	Budget for Public Hearing Commitments	1672	
	Total EMP Budget	4014.39	111.71

16. **Public Hearing Details:** PP submitted that Public Hearing notice was given in The Times of India (English Newspaper) and Hindustan (Hindi Newspaper) of 23.06.2024. The Public Consultation was conducted on 24.07.2024 at Arya Samaj Premises, near BIT Sindri, district Dhanbad, Jharkhand under the chairmanship of Additional Collector Dhanbad, Sh. Vinod Kumar. PP submitted that total 179 nos of person attended the public hearing and total 15 nos of representations were received in writing from and outside the district. The major issues raised during the public hearing were employment, healthcare and ambulance, waste from washery, plantation of trees, drainage & sewage system, garbage disposal, school / education in sail school, electricity, supply of water, road / cctv on roads / street lights, development of stadium and toilets and solar panel.

Action Plan for the issues raised during the PH is attached as Annexure-2

17. Plantation: PP submitted that the proposed greenbelt will be developed in 6.93 Ha which is about 33 % of the total project area. A 7.5 m wide greenbelt, consisting of at least 3 tiers around boundary of washery and vacant places will be developed as greenbelt and green cover as per CPCB/MoEF&CC norms. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 20,105 saplings in 6.93ha area will be planted and nurtured in hectares in 5 years. In addition to this plantation shall be carried out in (details of plantation of dumps etc. may be incorporated):

Sl. No.	Year	Area to be Covered (Ha)	No. of trees to be planted	Additional plantation considering Survival Rate of 80%	Total Saplings to be Planted	Expected Cost of Plantation in Rs. (Considering @ Rs. 400 per trees)
1.	1 st	1.386	3,465	--	3,465	1,386,000
2.	2 nd	1.386	3,465	695	4,160	16,64,000
3.	3 rd	1.386	3,465	695	4,160	16,64,000
4.	4 th	1.386	3,465	695	4,160	16,64,000
5.	5 th	1.386	3,465	695	4,610	16,64,000
Total		6.93	17,325	2,780	20,105	80,42,000

18. Project Cost: PP submitted that the total capital cost of the project is 93,900 Lakhs. The CSR Cost submitted by the PP is 2% of the net profit of the three preceding years. The estimated capital expenditure for implementation of EMP during the operation will be 4014.39 Lakhs and recurring cost will be 111.71 Lakhs per year.

19. Affidavit and Undertaking: PP has submitted an undertaking stating that the contents in the form of information and data of EIA Report has been prepared by the authorised consultant and is factually correct and not copied from any other EIA Reports.

Further, the PP has also submitted an affidavit stating that there is no construction done at the site of proposed project, there is no litigation on the project either at Hon'ble NGT or any other court of law, FCIL board has accorded "in principal approval" to the proposal for leasing of 21 Ha of FCIL land to M/s Steel Authority of India Limited, for setting up of Tasra Coking Coal Washery for Tasra Open Cast Project, subject to EC from MoEF&CC, there is no difference in the documents submitted i.e., CAF, Form (Part A,B&C), Layout Plan and EIA/ EMP and presentation being made to the EAC & further stated that the project activity is listed as 2(a) in EIA Notification, 2006 and categorized as 'A' as the production capacity is more than 2.5 MTPA. Therefore, the project is being submitted at MoEF&CC. The company further undertook that the contents of this declaration are true and correct and nothing has been concealed.

20. Written submissions by the proponent:

S. No.	Points	Written submissions made
1.	Relocation of School	Lions Public School is located in close vicinity of the proposed washery site (0.08 km from the site). SAIL has already requested FCIL for land availability for relocation of the school in its letter no. GM IC (T&C)/FCIL/2024/55 dated 12.07.2024. Additionally attached is an undertaking from SAIL that it would provide suitable alternative land for the relocation of the school, in case FCIL fails to do so. An undertaking in this regard has been submitted.
2.	Use of E-Vehicles	The washery operation will not involve use of diesel, other than DG sets, which will be used in case of emergency, no diesel operated HMTVs will be used. SAIL agrees to use E-Vehicles within washery premises.
3.	Revision of EMP and Public Hearing Budget	The budget for addressing the issues of the Public hearing has been re-worked and upgraded from Rs. 13.40 Crores to Rs. 16.72 Crores. Also, the budget for EMP has been re-worked and upgraded from Rs. 36.19 crores to Rs. 40.14 crores (including PH budget). Special focus has been kept on the issues related to improvement of healthcare facilities, avenue plantation, rainwater harvesting, skill development etc. Updated EMP and public hearing budgets have

S. No.	Points	Written submissions made
		been submitted.
4.	Details of CSR activities carried out by SAIL in Tasra Project area and outside area of Project Dhanbad	SAIL has undertaken numerous initiatives to enhance societal well – being. A wide range of activities in the fields of health, water, sanitation, education, sports, livelihood, such as skill development for youth and women, provision for healthcare facilities, plantation drives, etc. are currently being implemented. A detailed list of activities performed and proposed under CSR has been submitted. Further, as regard to medical on wheels SAIL would continue this facility additionally a medical health dispensary would be operated which would be manned by suitable medical staff.
5.	Authorization letter for GM, Tasra	Authorization letter from Executive Director of SAIL for GM I/c (Tasra) has been submitted.

Observations and deliberations of the EAC:

21. The Committee noted the following:

i. The instant proposal is for greenfield project for grant of Environmental Clearance (EC) for installation of Coking Coal Washery Plant (wet process) based on Heavy Media Cyclone of 3.5 MTPA in an area of 21 Ha and for setting up of new railway siding with take-off point from Dhanbad Sindri line of Eastern Central Railway, close to the boundary of the proposed plant by M/s Steel Authority of India located in Village: Rohraband; District: Dhanbad; State: Jharkhand.

ii. The Committee observed that the EC for Tasra Open Cast Coal Mine having capacity of 4 MTPA by M/s SAIL was accorded EC by MoEF&CC on 13.10.2009 vide letter no. J-11015/122/2007-I.A.II(M). The Tasra Open Cast Coal Mine is approximately at a distance of 2 km from the proposed washery.

iii. The EAC took into consideration the project site through the KML file on the Google Earth presented by the project Proponent along with the DSS of the project site on PARIVESH. The project area is covered under Survey of India Toposheet No. 73 I/6 (F45C6) and is bounded by the geographical coordinates ranging from Latitude 23°39'37. 22"N to 86°28'59.45"N and Longitude 23°39'51.23"E to 86°29'15.52"E. Project does not fall in the Critically Polluted Area (CPA)/ Severely Polluted Area (SPA), as per CEPI Assessment, 2018.

iv. The total project area is 21 Ha and it is proposed to be installed in FCIL land for which FCIL has given the "in principle approval" vide letter dated 20.11.2023. Further, the project does not involve any forest land and the project is not located within 10 km of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor/elephant corridor etc. However, there is presence of Schedule – I species, for which the PP has submitted the WLCP to the DFO, Dhanbad for approval on dated 30.08.2024, subsequently some observation was raised and revised WLCP was submitted on 21.09.2024. However, it is observed that the same is yet to be approved by the DFO.

v. ToR was granted for the instant proposal on 12.04.2024, vide letter no. J-11015/122/2007-IA.II(M).

vi. The Committee also deliberated on the Public Hearing conducted on 24.07.2024. under the chairmanship Shri Vinod Kumar, Additional Collector, Dhanbad. The advertisement of the same was published in The Times of India and Hindustan newspapers on 23.06.2024 and PH was attended by 179 people and written representations were received from and outside the district by 15 people. Major issues raised during the PH were Employment, Healthcare and Ambulance, Waste from Washery, Plantation of Trees, Drainage & Sewage System, Garbage Disposal, School/ Education in SAIL School, Electricity, Supply of Water, Road/ CCTV on Roads/ Street Lights, Development of Stadium and Toilets and Solar Panel. The Committee deliberated on the action plan of the PH budget and found the budget allocated for PH activities needs to be revised. The Committee is of the opinion that the special emphasis should be made on improvement of healthcare facilities, avenue plantation, rainwater harvesting, skill development, etc. The PP further revised the budget for PH from Rs. 13.40 Crores to Rs. 16.72 Crores, focusing on the activities highlighted by the Committee. The revised PH budget submitted by the PP is as follow and found to be satisfactory.

S. No.	Proposed Activities under Public Hearing Commitment Scheme	Amount (Lakhs.)
1.	Infrastructure development including installation of Solar Street Light, Construction/Repair of Pucca Roads, Waiting Halls in Buffer Zone as per the location and Park Seating Benches	269.70
2.	Safety & Security including installation of CCTV and necessary fixtures with provision of connection to Sindri Police Station and Repair to Patrol Van of Sindri Police Station	205.00
3.	Rejuvenation of Seven Lakes, Sindri, District-Dhanbad	90.00
4.	Renovation of Eleven Star Club, Youth Club and Kalyan Kendra Stadium by improvement of Gym, Running Tracks, swimming pool and other sports facilities	164.50
5.	Plantation in Buffer Zone at Schools, Market Place, Government Offices, Banks, Rest Shelters etc.	200.00
6.	Setting up of health care facility, Conducting Medical Camp, Strengthening Existing Dispensary and linking with Hospital, Providing Medical Equipment to Primary Health Center and Community Health Centre	461.50
7.	Environmental Remediation by carrying out cleaning work of weeds and waste	30.00
8.	Implementing Solid Waste Management by providing Garbage bins of 1000 litre at designated places	30.00
9.	Implementing Water Conservation & Drinking Water Infrastructure by constructing Rainwater Harvesting Pit and Installing Handpumps	21.50
10.	Improving Water & Sanitation facilities by installing manhole at L type colony, Construction of Cement Line Drainage and Repair and augmentation of existing Drainage.	118.80
11.	Education & Livelihood Generation by installing Solar Panel at Aurbindo Society and Providing Skill Development Training to Youth and Training to Woman for Entrepreneurship	81.00
	TOTAL	1672.00

vii. The Committee observed that there is a school located in close vicinity of the proposed washery site and same is proposed to be relocated. The PP had submitted the letter from the Principal of the school, regarding their consent to relocate the school from present location to a new location within 800-1200m away from the present location. The Committee deliberated on the new site proposed for the same and observed that the PP had finalized 3 alternate sites for relocation of school and the school authorities have also agreed for the same. However, the new site is yet to be finalized and PP has requested FCIL for land availability for the school. PP has also submitted an undertaking that if FCIL is unable to provide the land then SAIL would provide suitable alternative land for the school's relocation. PP has also submitted that all the necessary infrastructure at new location will be provided by SAIL and no financial expenditure will be borne by the school w.r.t infrastructure development.

viii. The Committee deliberated on the diesel consumption proposed by the PP and is of the opinion that diesel consumption should be minimized. The Committee suggested that the no diesel operated HMTVs should be used and the complete use of e-vehicles should be proposed within the washery premises. The PP agreed to the same and submitted that diesel consumption will be restricted to just DG sets, that too at the times of emergency. Other than that, PP agreed to use E-vehicles within the washery premises.

ix. The Committee deliberated on the Environment Management Protection Plan developed by the PP for the instant proposal. It observed that budget allocated for the water pollution control measures did not suffice and suggested PP to rework on the same. PP submitted the revised budget for EMP, increasing the same from Rs. 36.19 Crores to Rs. 40.14 Crores. The revised EMP submitted by the PP is as follows:

S. No.	Environmental Protection Measures	Capital Cost Rs. In Lakhs	Recurring Cost Rs. In Lakhs/Year
1.	Air Pollution Control Measures		
	Bag Filter	110.0	1.5
	Dry Fog Dust Suppression systems at Conveyor Transfer Points	30.0	2.5
	Fixed Water Sprinklers	25.0	2.5

S. No.	Environmental Protection Measures	Capital Cost Rs. In Lakhs	Recurring Cost Rs. In Lakhs/Year
	Mobile Water Sprinklers	15.0	1.5
	Fog /Mist Canon	40.0	3.0
	Provision of Wind Barriers	15.0	1.0
	Mechanical Sweeping M/c	65.0	5.0
	Sub Total (A)	300.0	17.0
2.	Water Pollution Control Measures		
	Rain Water Harvesting	100.0	10.0
	Coagulants for Thickeners	--	30.0
	STP 10 KLD	40.0	4.0
	Sub Total (B)	140.0	44.0
3.	Noise Pollution Control Measures		
	Acoustic Paneling for DG House	30.0	1.50
	Rubber Liners for Chutes, Classifier etc.	30.0	3.0
	Sub Total (C)	60.0	4.50
4.	Storage and Solid Waste Management		
	RCC flooring for Stock Piles of Clean Coal and Middling to avoid leaching	50.0	2.5
	Concrete platform with bund wall and oil collection system for storage of HSD, and Used Oil	5.0	1.5
	Sub Total (D)	55.0	4.0
5.	Environment Monitoring Program		
	Installation of 1 no. of CAAQMS, and 1 no. of Web Camera at Plant Outlet	60.5	5.05
	Post Project Monitoring - Cost of monitoring of environmental parameters for Ambient Air, Fugitive Emission, Stack emissions, Effluent, Ground water quality, Ambient & Work Zone Noise Levels monitoring, Efficiency Monitoring of Pollution Control equipment	--	3.66
	Periodical Medical Examination of Workers	--	1.5
	Sub Total (E)	60.5	10.21
6.	Occupational Health & Safety	19.5	24.0
7.	Greenbelt Development	83.16	8.0
8.	Ecology & Bio-diversity (Wildlife Conservation Plan)	1624.23	
9.	Budget for Public Hearing Commitments	1672	
	Total EMP Budget	4014.39	111.71

x. The Committee further deliberated on the CSR activities, proposed to be carried out by SAIL in Tasra Project Area and outside area of the project. Committee observed that SAIL has undertaken various initiatives to enhance societal well-being. Various activities in the field of health, water, sanitation, education, sports, livelihood, such as skill development for youth and women, provision of healthcare facilities, plantation drives, etc. are currently being implemented by the PP. PP also submitted the detailed list of activities already performed and further proposed under CSR.

xi. The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components.

xii. The EAC deliberated on the written submission of the project proponent and found it satisfactory.

Recommendations of the Committee

22. Based on the discussions held and the documents submitted, the EAC **recommended** the proposal for Environment

Clearance of Tasra Coking Coal Washery (Area 21 Ha having capacity of 3.5 MTPA) by **M/s Steel Authority of India Limited** located at Village: Rohraband; District: Dhanbad; State: Jharkhand under EIA Notification, 2006 (as amended) subject to the compliance of the following specific conditions in addition to the general/Standard EC conditions (**Annexure 1**).

23. The MoEF&CC has examined the proposal in accordance with the provisions contained in the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and based on the recommendations of the EAC hereby accords Environmental Clearance to M/s. Steel Authority of India Limited for Tasra Coking Coal Washery (Area 21 Ha having capacity of 3.5 MTPA) located at Village: Rohraband; District: Dhanbad; State: Jharkhand subject to compliance of Specific Environmental safeguard Conditions in addition to the standard EC conditions (**Annexure 1**).

24. The proponent shall obtain all necessary clearances/approvals that may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

25. The Environmental Clearance 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.

26. The PP is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.

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

28. General Instructions:

(i) The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC website where it is displayed.

(ii) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn must display the same for 30 days from the date of receipt.

(iii) The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions.

(iv) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.

(v) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

(vi) The Regional Office of this MoEF&CC shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

(vii) Validity of EC is as per the provision of EIA Notification, 2006 and its subsequent amendment.

29. This issue with an approval of the Competent Authority.

Yours faithfully,

(Sundar Ramanathan)
Scientist 'E'/Additonal Director
Tel: 011- 20819378
Email- r.sundar@nic.in

Copy To

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi.
2. The Secretary, Department of Environment & Forests, Government of Jharkhand, Secretariat, Ranchi.
3. Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office, 2nd Floor, Headquarter- Jharkhand State Housing Board, Harmu Chowk, Ranchi, Jharkhand – 834 002.
4. The Chairman, Jharkhand State Pollution Control Board, TA building, HEC complex, PO Dhurwa, Ranchi.
5. The Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, Delhi – 32.
6. The Chairman, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
7. The Regional Director, Central Ground Water Board, Mid-Eastern Region, 6th& 7th Floor, Lok Nayak Jai Prakash Bhawan, Frazer Road, Dak Banglow, Patna- 800011, Bihar.
8. The District Collector, Dhanbad, Government of Jharkhand.
9. PARIVESH Portal.

Annexure 1

Specific EC Conditions for (Coal Washeries)

1. A. Specific Conditions

S. No	EC Conditions
1.1	Project proponent has to obtain the consent to operate (CTO) for 3.5 MTPA Coal Washery after grant of Environmental clearance.
1.2	Approval of Wildlife Management Plan by the concerned DFO shall be submitted to the Ministry's regional office within next 3 months of the grant of EC.
1.3	Water requirement for the project is 966 m3/day and the same shall be met from Mine Pit water from the Tasra Coal Mine. No ground/surface water extraction is permitted for the project.
1.4	Rain water harvesting/storage pond of 60,000 KL capacity shall be developed and the collected water will be used for industrial activities to minimize the Ground water consumption.
1.5	Solar power system shall be established and 10% of the total power requirement shall be utilize through Solar Power system.
1.6	Transportation of Raw Coal shall take place by cross country belt conveyor and transportation of

S. No	EC Conditions
	washed coal and middlings shall take place by rail. Road transportation of raw coal, washed coal and middlings is not permitted. Regular water spraying shall be done on transportation route through Water tankers. A log of the water tanker needs to be maintained. The water tanker should be fitted with a GPS Tracker and a record of trips with GPS track needs to be maintained.
1.7	Water spraying shall be done on regular basis inside and around the project area (within 2 km of the plant site) on a regular interval and a log book should be maintained for the same. The fog cannon must be installed at periphery of the Coal washery in order to suppress the dust.
1.8	All the roads proposed to be constructed inside and around the periphery of the plant shall be concrete road only. Road transportation of raw coal, washed coal and middlings is not permitted.
1.9	A 7.5 m wide greenbelt, consisting of at least 3 tiers around boundary of washery and vacant places will be developed as greenbelt and green cover as per CPCB/MoEF&CC norms. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 20,105 saplings in 6.93ha area will be planted and nurtured in hectares in 5 years. A detailed action plan with budgetary provision should be submitted within 6 months to concerned RO of the Ministry.
1.10	The Plant will operate on closed water circuit with a concept of 'Zero Liquid Discharge' (ZLD). 100% water will be recycled and no treated & untreated wastewater shall be discharged outside the boundaries of project area.
1.11	Project proponent shall implement the protective measures as proposed in environment management plan (EMP) in a time-bound manner. The budget earmarked for the same is Rs 4014.39 Lakhs (Capital) and Rs 111.71 Lakhs (recurring)/ annum and should be kept in separate accounts and audited annually. The implementation status along with the amount spent with documentary proof shall be submitted to the concerned Regional Office of the Ministry for the activities carried out during the previous year.
1.12	Project proponent shall install a continuous ambient air quality monitoring station (AQMS) at suitable locations preferably the village side with the consultation of SPCB before commissioning of Plant operation. The real time data so generated shall be uploaded on company's website and it will be linked with CPCB & SPCB web portal. In addition, data should also be displayed digitally at entry and exit gate of Plant for public display.
1.13	The workers shall be provided all the essential facilities/Personal Protective Equipments (PPE) during operation and maintenance at workplace.
1.14	Project proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly. Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly.
1.15	Project proponent shall use of Gas engine/ Cleaner fuel engine for use of machines or as power back up to reduce the pollution load on environment. Project proponent shall implement additional measures to control Air pollution.

S. No	EC Conditions
1.16	Project proponent shall implement the activities proposed to address the issues raised during the public hearing in a time bound manner as committed in EIA/EMP report. The budget earmarked for the same is Rs. 1672 Lakhs (Capital) that should be kept in a separate accounts and audited annually. The implementation status/ action taken report along with the amount spent with documentary proof shall be submitted to the concerned Regional Office of the Ministry for the activities carried out during the previous year.
1.17	Project proponent shall monitor the heavy metal in the water samples at least twice/year, and install the piezometers for regular monitoring of groundwater level. Report shall be submitted along with six-monthly compliance reports to the concerned Regional Office of the Ministry.
1.18	Project proponent to undertake the recruitment of a full-fledged qualified manpower with Environmental Engineer/Env. Science degree background in Environment Management Cell etc., at coal washery plant for compliance of EC conditions.
1.19	Raw coal, washed coal and rejects shall be stored in covered storage facility. Fixed-type high-pressure sprinkler shall be installed in this storage yards.
1.20	Project proponent shall deploy the overall fleet of dumpers/trucks/other vehicles as electrical or CNG/LNG based for transportation of coal/OB etc and use e-vehicles for transportation of manpower.
1.21	Project proponent shall construct a 20 ft height wind barrier with galvanized/metal sheet all around the boundary of the washery and install fixed-type water sprinkler all along the boundary wall.
1.22	Project proponent is advised to implement the 'Ek Ped Maa Ke Naam' Campaign which was launched on 5th June 2024 on the occasion of the World Environment Day to increase the forest cover across the Country. This plantation drive is other than Green belt development. The action in this regard shall be submitted concerned RO in six monthly report.

Standard EC Conditions for (Coal washeries)

1. Statutory Compliance

S. No	EC Conditions
1.1	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
1.2	The project proponent shall obtain the necessary permission from the Central Ground Water Authority
1.3	Solid/hazardous waste generated in the mines needs to addressed in accordance to the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016.
1.4	Coal beneficiation practices shall be carried out under strict adherence to provisions of the Factories

S. No	EC Conditions
	Act, 1957 and subordinate legislations made there under.

2. Air Quality Monitoring And Mitigation Measure

S. No	EC Conditions
2.1	Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO ₂ and NO _x . Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc. carried out at least once in six months.
2.2	Continuous ambient air quality monitoring stations as prescribed in the statute be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM ₁₀ , PM _{2.5} , SO ₂ and NO _x . Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.
2.3	All approach roads shall be black topped and internal roads shall be concreted. The roads shall be regularly cleaned. Coal transportation shall be carried out by covered cross country belt conveyor.
2.4	Vehicular emissions shall be kept under control and regularly monitored. The vehicles having 'PUC' certificate from authorized pollution testing centres shall be deployed for washery operations.
2.5	Hoppers of the coal crushing unit and other washery units shall be fitted with high efficiency bag filters/mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of closed belt conveyor systems and from transportation roads
2.6	The raw coal, washed coal and coal wastes (rejects) shall be stacked properly at earmarked site (s) within stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored mineral does not catch fire.

3. Noise And Vibration Monitoring And Prevention

S. No	EC Conditions
3.1	The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.
3.2	Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity

S. No	EC Conditions
	with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.

4. Water Quality Monitoring And Mitigation Measures

S. No	EC Conditions
4.1	The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board.
4.2	The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No.J-20012/1/2006-IA.11 (M) dated 27th May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
4.3	Industrial waste water shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time.
4.4	The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the washery. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side stabilised with plantation so as to withstand the peak water pressure preventing any chance of inundation.
4.5	Heavy metal content in raw coal and washed coal shall be analysed once in a year and records maintained thereof.
4.6	An Integrated Surface Water Management Plan for the washery area up to its buffer zone considering the presence of any river/rivulet/pond/lake etc. with impact of coal washing activities on it, shall be prepared, submitted to MoEFCC and implemented.
4.7	Waste Water shall be effectively treated and recycled completely either for washery operations or maintenance of green belt around the plant. The washing technology so chosen should conform to 'Zero Liquid Discharge
4.8	No ground water shall be used for coal washing unless otherwise permitted in writing by competent authority (CGWA) or MoEFCC. The make-up water requirement of washery should not exceed 1.5 m ³ /tonne of raw coal.
4.9	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.
4.10	The project proponent shall take all precautionary measures to ensure riverine/ riparian ecosystem

S. No	EC Conditions
	in and around the coal mine up to a distance of 5 km. A riverine/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government

5. Green Belt

S. No	EC Conditions
5.1	The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

6. Public Hearing And Human Health Issues

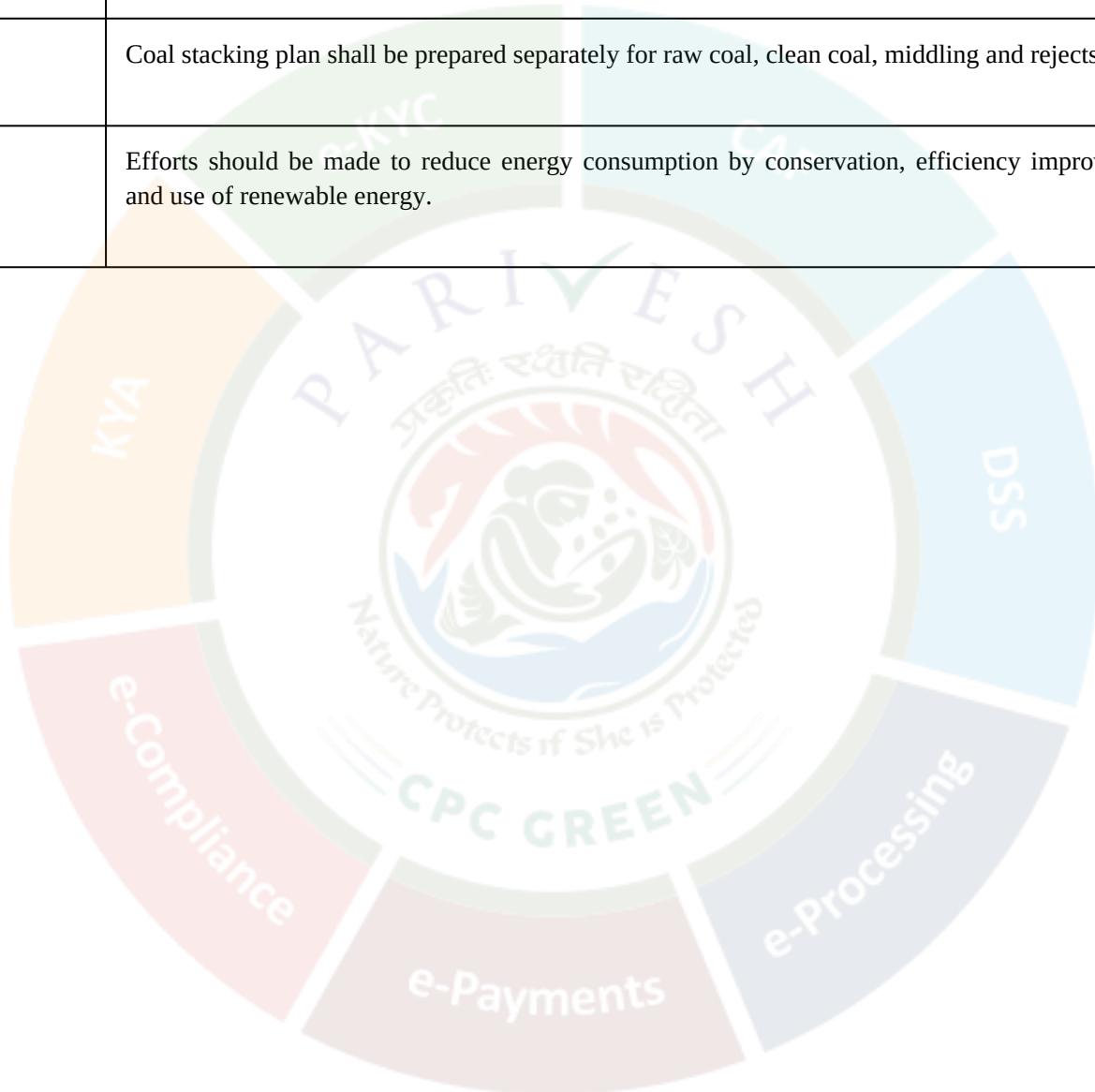
S. No	EC Conditions
6.1	Adequate illumination shall be ensured in all washery locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & it's RO on six-monthly basis. The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any.
6.2	Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
6.3	Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.
6.4	The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.I1 (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

7. Miscellaneous

S. No	EC Conditions
7.1	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website

S. No	EC Conditions
	permanently.
7.2	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
7.3	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
7.4	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
7.5	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
7.6	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
7.7	The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
7.8	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
7.9	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
7.10	No change in coal beneficiation process and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC) with such conditions mentioned therein. No change in the maximum quantum of raw material feed per annum against the approved washery capacity shall be made.
7.11	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
7.12	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
7.13	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
7.14	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

S. No	EC Conditions
7.15	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
7.16	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
7.17	Coal stacking plan shall be prepared separately for raw coal, clean coal, middling and rejects.
7.18	Efforts should be made to reduce energy consumption by conservation, efficiency improvements and use of renewable energy.



Annexure-2

Action Plan for the issues raised during the PH is as follows:

Proposed Activities under Public Hearing Commitment Scheme		Place of Implementation	Phasing of Allocated proposed PH commitment Budget										
			(Rs. in INR)										
			Year-1	Year-2	Year-3	Year-4	Year-5	Year-6	Year-7	Year-8	Year-9	Year-10	Total
Infrastructure development	1. Solar Street Light (Approx. 100 Nos.)	7 Nos. Solar street light in L type colony (from Qtr No 199 to 210). Seven Lakes area Solar street lights would be installed in whole town where the road is damaged and as per the demand received from the public. On the main road at the interval of 10 meter between two lights on the main road from L-516 from residence to M-39 to 40 (area extending from Langra bridge to Jai Hind more upto the point where ward/name signboard is there).	2500 00	2500 00	50 00 00	5000 00	2500 00	2500 00	0	2500 00	50, 00 0	50,0 00	2350 000
	2. Construction/Repair of Pucca Road	Seven Lakes Kalyan Kendra (Entrance and Exit) Repair - L type - colony (from Qr No - 199 to 210 and 163 to 186) Colony of Quarter J-12 From Qr No - SK4 - 125 to 149, 150 to 172 From Officers Club to Quarter Rk1 60 and upto Rk1 51	0	2000 000	20 00 00 0	2000 000	2000 000	2000 000	40 00 00 0	2000 000	20 00 00 0	2000 000	2000 0000
	3. Waiting Halls in Buffer Zone as per the location (16 Nos.)	1. Sindri Auto Stand (Near Kalpana Talkies) 2. Hatia Market (Saharpura) 3. Near ACC Main Gate 4. Rohrabandh Auto Stand (Near SBI Sindri) 5. In front of Bank of India (in front of BIT gate) 6. In front of BIT Main gate 7. In front of Community Health Centre, Gaushala Bazar 8. Kandra Bazar 9. Chasnala Bazar 10. Loco Bazar 11. Sudamdih Auto Stand 12. In front of BIT east Campus 13. Birsa Kanhu Chowk Gulitand More	0	4000 00	40 00 00	4000 00	4000 00	4000 00	40 00 00	4000 00	80 00 00	4000 00	4000 000

		14. Baghmara Panchayat - Suwaria 15. Near Jharkhand Public School (opposite Krishi Vigyan Kendra). 16. SBI Baliapur Bazar Branch											
	4. Park Seating Benches (155 Nos.)	1. Saharpura Market Complex, (8 nos.) 2. Rohrabandh Market Complex, (4 nos.) 3. Rangamati Market Complex, (5 nos.) 4. Jai Hind Market Complex, (4 nos.) 5. Manhortand Market Complex, (4 nos.) 6. Domgarh Market Complex, (4 nos.) 7. At Weekly Vegetable Market (Hatia), Saharpura, (10 nos.) 8. Near Sindri Auto Stand, (3 nos.) 9. Near Sai Mandir, Sindri, (3 nos.) 10. Near De nobili School, Sindri, (3 nos.) 11. Near SBI Sindri Branch, (3 nos.) 12. Near Officers Club Sindri, (2 nos.) 13. Near Paokodi More, Manohartand, (2 nos.) 14. Near Canara Bank, Sindri, (2 nos.) 15. Near Bank of India, Sindri, (3 nos.) 16. Near Hanuman Mandir (Atal Chowk), (4 Nos.) 17. Near Kandra Bazar, (6 nos.) 18. Near Chasnalla Bazar, (6 nos.) 19. Near Loco Bazar, Market (5 nos.) 20. Near Sudamdih auto stand, (6 nos.) 21. Near BIT east campus, (3 nos.) 22. Birsa Kanhu Chowk Gulitand, (3 nos.) 23. Kalyan Kendra (20 nos.) 24. Eleven Star Club, L type Colony (6 nos.) 25. Youth Club Ground (6 nos.)	62,000	62,000	62,000	62,000	62,000	62,000	62,000	62,000	62,000	62,000	620,000
Safety & Security	5. Installation of CCTV and necessary fixtures (64 Nos.) with provision of connection to Sindri Police Station	Hanuman Mandir at IM Type Quarters, Aurbindo Society, Kali Mandir, Rajabasti (11 Locations) xii. Near Saraswati Vidya Mandir (roundabout covering the auto stand area).	0	2000000	2000000	2000000	2000000	4000000	2000000	2000000	2000000	2000000	2000000

		xiii. At main road near Tina Market, Saharpura xiv. Near De nobili School, xv. Near DAV School, xvi. At main road near FCIL Guest House xvii. At main road near HURL Guest House xviii. At Chhath Talab, Rangamati xix. Main Road near to Seven Lakes, Sindri xx. At Main Road on the Pokaudi More xxi. Atal Chowk Round-about xxii. At Main Road entry to Sindri Railway station xxiii. Main road at Rangamati Basti xxiv. On entry/exit gates (3) of the Park situated at Jai Hind More xxv. At Hirak Road and Basti Road Intersection. xxvi. At main road near Raja-basti Primary School xxvii. At main road near Baliapur Institute of Technology East Campus xxviii. At main road near Maxx Plus Hospital, Krishi Vigyan Kendra on the deuli-khairpal Road xxix. At main road near BDO office, Baliapur xxx. At main road on the Seven Lake Area xxxi. Near Railway crossing (road entering BIT campus) xxxii. Main road at Sindri College, Manohartand xxxiii. Main road at Manohartand Basti xxxiv. At main road near Middle School, Baradaha xxxv. At main road near Middle School Raghunathpur (Jharkhand) xxxvi. At main road near Asanbani Village facing deuli-khairpal Road. xxxvii. At main road near S.P Primary School, Ichhar, WB xxxviii. At Domgarh Nauka Ghat, Ichhar, WB xxxix. At Main road near, PDIL old Office. xl. At main road near Rangamati Electric Substation. xli. Angan badi Kendra, Prem Nagar, Sindri Baliapur Rd, Raghunathpur										
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		xlii. Baradaha Panchayat Bhawan, Baradaha xliii. Dudhia Panchayat Bhawan, Dudhiya xliv. Baghmara Panchayat, Suwaria Govt. Polytechnic College, Bhaga xliv. Canara Bank, Parasbania, Parasbania panchayat, Parasbania xlvi. Youth Club, Saharpura xlvii. Intersection Point at Baliapur-Gobindpur Road in Baliapur xlviii. At BIT main gate xlix. At Community Health Centre, Gaushala Bazar i. Main road at Kandra Bazar li. Main road at Chasnala Bazar lii. Crossing at Bir Birsa Sido Kanhu Chowk Road liii) Kalyan Kendra Control Rooms with all required amenities (computer, laptop, router etc.) shall be set up at Local police station, Sindri by the Project Proponent for monitoring of CCTV												
	6. Repair to Patrol Van of Sindri Police Station	Sindri Police Station	0	0	0	5000 00	0	0	0	0	0	0	0	5000 00
Cultural	7. Rejuvenation of seven lakes by the following activities: Desilting and Deeping of Ponds, Weed removal and surrounding cleanup, Solid Waste Management (Bins), Pole lights (Solar), Seating Benches & Pucca Roads in the ghat perimeter for Beautification	At Seven Lakes	0	1000 000	10 00 00 0	1000 000	1000 000	1000 000	10 00 00 0	1000 000	10 00 00 0	1000 000	9000 000	
Sports & Youth	8. Renovation of Eleven Star Club & Youth Club Play Ground at L type by the following activities: Renovation of Volleyball Cricket ground, Weed and debris cleanup leveling of the ground, installation of sitting benches	Eleven Star Club & Youth Club Play Ground	0	0	40 00 00	2000 00	1000 00	50,0 00	50, 00 0	50,0 00	0	3000 00	1150 000	
	9. Renovation of Kalyan Kendra Stadium by the following activities: Seats setup, Set up of Open air gym, Renovation of Basketball.	Kalyan Kendra Stadium	0	0	10 00 00 0	1000 000	1000 000	2000 000	10 00 00 0	1000 000	10 00 00 0	1000 000	9000 000	

	Volleyball, Cricket, Ground Flood lights, Running Track, Installation of Entry/Exit Gate												
	10. Renovation of Swimming Pool at Kalyan Kendra by the following activities: i. Carrying out all the necessary cleaning (with chlorine agent) & maintenance work related to the water treatment and supply to the Pool. ii. Renovation of the pool premises, diving platform. iii. Construction of 5 Change rooms with bathroom with all necessary fixtures. iv. Benches around the pool for seating v. Solar Lights around the Pool vi. Providing Life Jackets, Swim Rings, Ropes, alarm system for safe pool operation.	Swimming Pool at Kalyan Kendra	0	5000 00	40 00 00	2500 00	2500 00	4000 00	50, 00 0	50,0 00	20 00 00	2000 00	2300 000
	11. Renovation of Sindri Kalyan Kendra Stadium by the following: i. Carrying out all necessary repairs/replacement before installation of new seats ii. Construction of Open Air Gym iii. Renovation of Basketball ground iv. Development of Volleyball ground v. Installation of Flood lights for the coverage of entire ground. vi. Upgradation of existing Running Track in Kalyan Kendra vii. Installation of CCTV on the entry/exit gates viii. Installation of New gates (2) at the Kalyan Kendra ix. Providing Gym equipment such as Running Treadmill, Air bike gym	Kalyan Kendra	0	0	0	0	0	0	10 00 00 0	1000 000	0	0	2000 000

	bicycles, Resistance Tube, Kettlebells, Gym Bench, x. Construction of an indoor play room for the following games – Badminton, Table Tennis, foosball etc. xi. Construction of Black Top road at both the entrances (roughly 200 meters combined)												
	12. Set up of Indoor Sports room with games such as Table Tennis, Chess, billiards, Squash at Kalyan Kendra, Sindri	Kalyan Kendra	0	0	0	0	0	1000 000	10 00 00 0	0	0	0	2000 000
Plantation	13. Plantation of Fruit Bearing and Medicinal Properties Trees and Plants in Buffer Zone in Consultation with Statutory Local Bodies (3000 Nos.)	In buffer zone	2000 000	2000 000	20 00 00 0	2000 000	2000 000	2000 000	20 00 00 0	2000 000	20 00 00 0	2000 000	2000 0000
Healthcare	14. Set up of Health Care Facility with infrastructure facilities such as beds, medical instruments, pathological lab, testing instruments and other necessary facilities		0	0	0	3000 000	4000 000	4000 000	40 00 00 0	4000 000	10 00 00 0	0	2000 0000
	15. Medical Camp at buffer zone villages & town for free consultation, medicines and treatment (first five years at 1 Month interval thereafter at 3 months interval)	The Project Proponent would organize medical camp in the buffer zone. Medicines, treatment as well as consultation shall be free of cost.	1500 000	1000 000	10 00 00 0	1000 000	1000 000	5500 00	55 00 00	5500 00	50 00 00	5000 00	8150 000
	"Providing Medical Equipments such as X-ray, ECG Machine, Portable Testing Kits, First Aid kits in consultation with PHC & CHC officials. Equipments for PHC and CHC of Chasnalla and Kandra"				70 00 00 0	3000 000							1000 0000
	Strengthening of Existing SAIL Dispensary		2500 000	2500 000									5000 000
	16. Ambulance (Tata Winger Ambulance) for Sindri and Buffer Zone Habitations	Ambulance service will be available for all residents in the buffer zone	0	0	0	0	3000 000	0	0	0	0	0	3000 000

Environmental Remediation	17. Weed and Bush Clean up in Buffer Zone	At Seven Lake area IM Type Colony –(Near Qtr 449-450) Youth Club Eleven Star Club Kalyan Kendra ground, pool and vicinity zones. RK1 Colony (Near Qr No –RK1 - 54) SK4 Colony - (Near Qr No - SK4 - 125 to 149, 150 to 172) At or Near Religious Places such as Temples and gurudwaras Parks	3000 00	3000 00	30 00 00	3000 00	3000 00	3000 00	30 00 00	3000 00	30 00 00	3000 00	3000 00
Solid Waste Management	18. Installation of 1000 Litre Garbage Collection Cans in Town/Buffer zone habitations as well as Kalyan Kendra, Seven Lakes etc. (200 Nos.)	Seven Lakes Designated Market areas such as i. Saharpura Market Complex, ii. Hatia Market Complex, Saharpura iii. Rohrabandh Market Complex, iv. Kalyan Kendra Complex, v. Rangamati Market Complex, vi. Jai Hind Market Complex, vii. Manhortand Market Complex, viii. Domgarh Market Complex ix. Kandra Market Complex x. Chasnala Market Complex Kalyan kendra Near Places of Worship and other locations which will be decided in consultation with the Municipal Corporation	3000 00	3000 00	30 00 00	3000 00	3000 00	3000 00	30 00 00	3000 00	30 00 00	3000 00	3000 00
Water Conservation & Drinking Water Infrastructure	19. Construction of Hand pump at L type & Rk1 Quarters as per Action Plan (2 Nos.)	Near Quarter L-186 with proximity to the main road, Near RK1 -54 Quarter colony	150, 000	0	0	0	0	0	0	0	0	0	150, 000
	20. Rainwater Harvesting Structure Pits in Buffer Zone (50 Nos.)	Location of RWH pits will be decided in coordination with local bodies	0	2000 00	20 00 00	2000 00	4000 00	2000 00	20 00 00	2000 00	20 00 00	2000 00	2000 00
Water & Sanitation	21. Construction of Toilets (15 units with 3 M & 3F)	Toilets (3 Male, 3 Female) and two basins with 300 litre Overhead water tank proper water supply arrangement at each of the following market - i. Saharpura Market Complex, ii. Hatia Market Complex, Saharpura iii. Rohrabandh Market Complex, iv. Kalyan Kendra Complex, v. Rangamati Market Complex, vi. Jai Hind Market Complex, vii. Manhortand Market Complex, viii. Domgarh Market Complex ix. Kandra Market Complex x. Chasnala Market Complex xi. Sindri Town Railway Station (Repair, Renovation and upgradation) xii. One toilet complex with 4 bathroom (toilet) (2M, 2F) and 2	0	3750 00	37 50 00	3750 00	3750 00	3750 00	37 50 00	3750 00	37 50 00	7500 00	3750 000

		basins with fauctes and overhead water tank (300 litres) for water supply at Durga Temple near SK4 Locality. xiii. At Kalyan Kendra Swimming Pool toilet complex with 4 bathroom (toilet) (2M, 2F) and 2 basins with fauctes											
	22. Construction/Repair of Cement Lined Drains	RML – 133 to 140 From Veterinary Hospital L - 330 to M - 39 to 40 on the main road connecting with the colony drainage Repair and conversion of drainage to cement lined drainage in Colony of L-186 Repair and conversion of drainage to cement lined drainage in Colony of IM-445 to IM-468	1000 000	8000 00	70 00 00	9000 00	7000 00	8000 00	80 00 00	1000 000	70 00 00	7000 00	8100 000
	23. Manhole Cover at Eleven Star Club (1 Nos.)	Eleven Star Club, Saharpura	0	30,0 00	0	0	0	0	0	0	0	0	3000 0
Education & Livelihood Generation	24. Installation of Solar Panels and related Equipment at Aurbindo Society (10 Kw)	Aurbindo Society near Rangamati	0	4000 00	50 00 00	0	0	2000 00	0	0	0	2000 00	1300 000
	25. Skill Development Training Center (Skill Development Training for operators, fitters, electricians)		2000 000	4000 00	20 00 00	1000 000	4000 00	2000 00	10 00 00 0	4000 00	20 00 00	1000 000	6800 000
	26. Training centers for Ladies (stitching, Embroidery, tailoring etc.)												
Total			1006 2000	1451 7000	20 33 70 00	1998 7000	1953 7000	2008 7000	20 08 70 00	1693 7000	12 68 70 00	1296 2000	1672 0000 0

ANNEXURE - II



Government of India
Ministry of Environment, Forest and Climate Change
IA Division
(Coal Mining)



Minutes of AGENDA FOR 6th MEETING OF THE EXPERT APPRAISAL COMMITTEE (COAL MINING SECTOR) meeting Coal Mining held from 17/01/2024 to 18/01/2024
 24

Date: 05/04/2024

MoM ID: EC/MOM/EAC/154473/1/2024

Agenda ID: EC/AGENDA/EAC/154473/1/2024

Meeting Venue: MoEF&CC

Meeting Mode: Hybrid

Date & Time:

17/01/2024	10:30 AM	05:30 PM
18/01/2024	10:30 AM	01:00 PM

1. Opening remarks

At the outset, the Chairman welcomed the Expert members & other participants and requested to start the proceeding as per the agenda adopted for this meeting. The list of Members participated in the meeting is at Annexure VIII. Note - Due to Editor issue, Final Approved Minutes of the EAC is enclosed herewith in PDF as a ANNEXURE]. Please refer this document and Treat as approved Minutes of the EAC [Coal Sector].

2. Confirmation of the minutes of previous meeting

Confirmation of the Minutes of 5th Meeting of the EAC (Coal): The minutes of the 5th Meeting of the EAC (Coal) held during 21st& 22nd December 2023 has been confirmed by the Chairman with the following corrections. Agenda No: 5.13 (5th EAC Meeting held during 21-22 December, 2023) Para as per MoM "Further, the Committee recommended to extend the timeline till 31.07.2024 subject to the submission of Action taken report on progress of works before 31st July, 2023 and compliance to EC conditions. Subsequently, the EAC will review the proposal in entirety in month of June/July 2024 and now at this stage, the Committee proposed the condition of Environmental clearance condition no. 2A(ix), which shall be read as: The coal shall be transported through closed belt conveyor system of a length of 13 km to Banadag railway station till 31st July, 2024 to use Service road for transportation of coal to Banadag railway siding by adopting all mitigative measure to control dust pollution." subject to further directions of Hon'ble Supreme Court in the matter and Certified Compliance Report (CCR) from the IRO for the Amendment of Environmental Clearance (EC) and their respective Action taken report by June, 2024." Committee is of the view that timeline for submission of action taken report shall be read as 31st July 2024 in place of 31st July, 2023. Further, the above condition shall be read as "The coal shall be transported through closed belt conveyor system of a length of 13 km to Banadag railway station and till 31st July, 2024 Project Proponent is permitted to use Service road/State Highways for transportation of coal to Banadag railway siding by adopting all mitigative measures to control dust pollution subject to further directions of Hon'ble Supreme Court in the matter and Certified Compliance Report (CCR) from the IRO for the Amendment of Environmental Clearance (EC) and their respective Action taken report by June, 2024." Agenda Item 3.14 (3rd EAC Meeting held on 16-17 November, 2023) The Committee is of the view that specific condition no 1 i.e "PP should complete the work of in-pit Belt conveyor system with CHP and Silo loading system till December, 2024 and accordingly, SPCB shall grant CTO for road transportation after December, 2024." Shall be read as: "PP should complete the work of in-pit Belt conveyor system with CHP and Silo loading system till October, 2024 and accordingly, SPCB shall grant CTO for road transportation after October, 2024."

3. Details of proposals considered by the committee

Day 1 -17/01/2024

3.1. Agenda Item No 1:

3.1.1. Details of the proposal

Tasra Coking Coal Washery Plant of M/s. Steel Authority of India Limited with 3.5 MTPA capacity of 21 Ha area, located at FCIL Campus, Town – Sindri, District-Dhanbad, Jharkhand. by STEEL AUTHORITY OF INDIA LTD located at DHANBAD, JHARKHAND			
Proposal For		Fresh ToR	
Proposal No	File No	Submission Date	Activity (Schedule Item)
IA/JH/CMIN/455615/2023	J-11015/122/2007-IA.II(M)	15/12/2023	Coal washeries (2(a))

3.1.2. Project Salient Features

Agenda No. 6.3
Tasra Coking Coal Washery with capacity of 3.5 MTPA in the project area of 21 ha. of M/s. Steel Authority of India Limited located at FCIL Campus, Town – Sindri, District Dhanbad (Jharkhand) - For Terms of Reference - reg.
[Online Proposal No. IA/JH/CMIN/455615/2023; File No. J-11015/122/ 2007-IA. II(M)]
6.3.1 The proposal is for Terms of Reference for Tasra Coking Coal Washery with capacity of 3.5 MTPA in the project area of 21 ha. of M/s. Steel Authority of India Limited located at FCIL Campus, Town – Sindri, District Dhanbad (Jharkhand). PP applied online vide proposal No IA/JH/CMIN/455615/2023 for grant of TOR and the proposal was placed in 5th EAC meeting held during 17-18 January, 2024.
6.3.2 The Project Proponent made a detailed presentation on the salient features of the project and informed that:

PROJECT LOCATION:

- The project area is covered under Survey of India Topo sheet No. 73 I/6 (F45C6) and is bounded by the geographical coordinates ranging from 23°39'37.22"N to 23°39'51.23"N and longitudes 86°28'59.45" E to 86°29'15.52" E.
- The project/activity is proposed by the PP is a Green filed project and covered under category A of item 2(a) 'Coal Washeries' of the Schedule to the Environmental Impact Assessment Notification, 2006 as the throughput of Coal is > 2.5 MTPA therefore, it requires appraisal at Central level by the sectoral EAC in the Ministry.
- Tasra Coal Washery had been granted EC for 3.5 MTPA of M/s Steel Authority of India Ltd., Vide letter no. J-11015/ 365/2009-IA.II(M) pt. Dated 30.03.2017 by the MoEF&CC. However, the Coal Washery could not be installed as land for installation of the Washery could not be acquired.
- The Fertilizer Corporation of India Limited (FCIL) has obtained in principle approval for leasing of **61 Acres (24.69 Ha) of FCIL Land (Old SMP Plant Area)** for setting up of a Coal Washery for Tasra Opencast Coal Project Vide Letter no. FCIL/Sindri/Tasra/2023/1810 dated 20th November 2023.
- PP submitted that there is no Wildlife Sanctuaries, National Park, Biosphere Reserve, exists within 10 Km radius of the project site.
- The area is not Falling under Critically Polluted Area.
- One small unnamed Protected forest exists at a distance of 9.5 Km.
- No R&R involved
- No Archeological/ Historical/ Ancient Monument within 10 KM of the project site
- No forest land is involved in the project.

LAND USE DETAILS OF PROJECT SITE:

The land usage pattern of the coal Washery project is as follows:

Sl. No.	Details	Area in Ha	% w.r.t. Total Area
1.	Main Plant Area	2.52	11.99
1.	Storage Area for Coal Stock	6.23	29.68
1.	Water Reservoir	0.62	2.94
1.	Green Belt	6.93	32.99
1.	Internal Roads	2.12	10.09
1.	Parking Area	1.48	7.05
1.	Misc Area	1.11	5.27
Total		21.00	100.00

TRANSPORTATION OF COAL:

- Transportation of raw coal from Mine Pit to the Coal Washery shall be through conveyor/private road and Clean/middling coal from the Washery to the Steel & power plants of SAIL will be through Rail.
- **Quantity being transported by Road/Rail/Conveyor:** Washed coal & middling will be transported through Rail.

OTHER DETAILS:

- Total water requirement for the project is 966 m3/day.
- Application for obtaining the approval of the Central Ground Water Authority for NOC for water withdrawal will be submitted after the approval of ToR.
- Damodar River is flowing at a distance of 2.3 Km from Southern Boundary of the lease area. No nala diversion is involved in the project.
- No court cases, violation cases are pending against the project of the PP.

- The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder.
- The project involves no project affected families. R&R of the PAPs is not required.
- Total cost of the project is Rs. 93,900 Lakhs.

BENEFITS OF THE PROJECT:

- The project is reported to be beneficial in terms of bigger exercise by Government of India to increase the washing capabilities of Indian coal in order to increase the supply of washed coking coal to steel plants thereby reduce the outgo of valuable foreign currency. This will also help in reducing the prices of steel product so vital for Indian economy.

3.1.3. Deliberations by the committee in previous meetings

Date of EAC 1 :28/02/2024

Deliberations of EAC 1 :

8.3.3: Committee after deliberations noted the following:

The proposal was initially considered in the EAC meeting held on 17-18 January 2024 wherein Committee after deliberation deferred the proposal for want of additional information. PP vide letter dated 09.02.2024 submitted the reply on the Parivesh portal. The reply submitted by PP is as follows:

Query-1: PP shall conduct a detailed alternate site selection study for at least 3 sites including the existing mining site.

Reply: PP Submitted that a detailed study for the selection of the site for installation has been done for four sites. It was mentioned that Site number 2 & Site number 3 exist inside the Tasra Mining Lease area. PP presented the analysis of alternative Sites and justification of selection. PP submitted that Site-I was selected for setting up the proposed washery. The reasons that Site – II, Site – III, and Site – IV have not been preferred for setting up the proposed washery are summarized below:

Site-II - Chasnalla Colliery Colony (49.4 Acre or 20.0 Hectare)

If this site is required, a total of 25+ Hectares shall be needed. Washery: 15 Ha, Railway Siding with Rapid Loading System: 5 Ha and Conveyor: 5 Hectares (which is not feasible; instead of that, road transportation is a better option.). Human habitations are present in the area proposed for washery. R&R will be required at a large scale, increasing the cost of the project. The area is coal-bearing; setting up a washery will cause blockage of coal resources. The underground mine infrastructure of the Chasnalla coal mine is present just adjacent to the boundary. The area is present in high flood level zone of Damodar River. The land falls inside the mine lease area of Tasra Coal Mine. 1260 trees will have to felled at this location. The offtake route is a challenge and would involve passing through densely populated areas, which will be an issue from a safety point.

Site-III - Domgarh (96.7 Acre or 39.1 Hectare)

Approximately 1500 families are present in the area proposed for washery. The site would require R&R, impacting the cost of the project. The land falls inside the mine lease area of Tasra Coal Mine. Cutting of 3215 Trees is expected for setting up of a Washery at this location. If this site is required, a total of 23+ Hectares shall be needed (Washery: 15 Hectares; Railway Siding with Rapid Loading System: 5 hectares; Conveyor: 4 Hectares). In this site, offtake infrastructure i.e., RLS will require additional set-up at proposed Site I and hence not prescribed.

Site-IV – Rohrabandh (49.7 Acre or 20.1 Hectare)

The site has a rich green cover. A large no of trees to the tune of 2169 will have to be felled at this location. Additional Land will be required at other locations for R&R of the displaced family, Railway siding and Rapid Loading System. If this site is selected, a total of 27+ Hectares shall be needed (Washery: 18-20 Hectares; Railway Siding with Rapid Loading System: 5 hectares; Conveyor: 3 Hectares). In this site, offtake infrastructure i.e., RLS will require additional set-up at proposed Site I and hence not prescribed.

Query-2: PP shall confirm the minimum area required for setting up of the Washery.

Reply: PP submitted that they have engaged M/s Daniels GT India Private Limited, for setting up of washery infrastructure. The consultant has confirmed vide letter dated 09.02.2024 that about 15-18 Hectares of land is required for setting up of a washery. PP displayed a copy of the letter during the presentation and submitted the same.

Query-3: PP shall submit a transportation plan for each site selection (preferably through rail mode and belt conveyor combination).

Reply: Detailed study w.r.t to transportation for all four sites has been done taking into consideration transport through Belt conveyor for raw coal & Rail mode for washed coal and has been addressed at sl.no. 5 & 6 of the Site Analysis Report. PP also submitted the KML showing the transportation scenario.

Query-4: PP shall submit the habitation details around each of the alternate site considered for setting up of the plant.

Reply: All four sites have been studied for habitation around them and details of which have been given at sl.no. 4 & 17 of the Site Analysis Report. “Lions Public School” is present within a 100-meter radius of the land proposed for setting up of washery. PP further submitted that the school is running in an unauthorised manner, and it is planned to relocate the school at another premises situated approximately 3 Km away, where another facility of “Lions Public School” is already running. FCIL has communicated to the School for unauthorised occupation vide letter no – FCIS/EST-Rev-8(173)/19/364 dated – 11.09.2019. PP also showed the letter during the meeting.

The Committee deliberated on the reply submitted by the PP. The Committee also observed that the site PP has selected is located inside the FCIL Campus. Further, PP has proposed the transportation of Raw Coal from the conveyor belt and washed coal through the railway. The site has the least area requirement and R&R issues as ascertained by the PP. The Committee noted that there is a school just close to the proposed site. PP submitted that it is an unauthorized occupation. The Committee is of the view that PP shall submit an action plan for relocation of the school and students which is at a distance of 0.8 Km from the proposed site. The PP vide letter dated 29/02/2024 submitted its reply wherein it mentioned that “in discussion with FCIL Estate department we have identified a location nearer to present premises and proposed the same to school authorities. The Principal of the Lions Public School, Sindri has agreed and written a letter to the GM, I/C (Tasra & Chasnala), SAIL dated 29/02/2024, that they are ready to relocate from the existing premises to a new location which is at a distance of 200 - 300 m from the present location.

Moreover, SAIL/KTMPL (MDO of SAIL) will bear the entire necessary infrastructure development expenses related to the construction of the new school and hence Lions Public School will have no financial expenditure for the same.”

The PP vide communication dated 2/03/2024 also submitted that “Further to our communication made to your office on 29.02.2024 for the relocation of Lions Public School within 300 meters from the current premises, duly accepted by school authority. In past 2 days, We have further identified 2-3 more potential sites, all are within a 1-2 kilometres radius of the existing premises.

SAIL, through its MDO (KTMPL), is committed to facilitating the seamless relocation of the school to the new site, as directed by the committee, ensuring the complete satisfaction of the school authorities prior to the commencement of the proposed Tasra Coal Washery.

We hereby assure that the first site is available additional 2-3 more sites are also available as alternative options.”

The Committee noted that PP has identified the optional site to shift the school, PP has submitted an undertaking to construct the new school in lieu of the present school and Lion Public School will have no financial expenditure for the same, PP also submitted a letter dated 29/02/2024 from the Principal giving his consent to re-locate the school. Based on the submission PP was asked vide email dated 8/0/2024 that “PP should give the plan and assurance till the new school is incepted at full capacity, the students should not be shifted anywhere without their consent.” The PP vide letter dated 11/03/2024 informed that “We assure that school at new location will be functional well before Washery comes in Operation. Further, we assure that the shifting of school shall be done in due consent of the School administration and authorities”

Based on the submission of PP, the Committee is of the view that the grant of ToR should not be taken as a direction from EAC/MoEF&CC for shifting the school. The school management and families whose children are studying in this school are free to make their independent decisions in this regard.

Based on the discussion held and the document submitted the Committee recommended the proposal for a grant of ToR for the setting up of Tasra Coking Coal Washery Plant of capacity 3.5 MTPA in an area of 21 Ha, located at FCIL Campus, Town – Sindri, District- Dhanbad, Jharkhand, by Steel Authority of India Limited. The Committee in addition to standard ToR also prescribed the following Specific ToR.

3.1.4. Deliberations by the EAC in current meetings

8.3.3: Committee after deliberations noted the following:

The proposal was initially considered in the EAC meeting held on 17-18 January 2024 wherein Committee after deliberation deferred the proposal for want of additional information. PP vide letter dated 09.02.2024 submitted the reply on the Parivesh portal. The reply submitted by PP is as follows:

Query-1: PP shall conduct a detailed alternate site selection study for at least 3 sites including the existing mining site.

Reply: PP Submitted that a detailed study for the selection of the site for installation has been done for four sites. It was mentioned that Site number 2 & Site number 3 exist inside the Tasra Mining Lease area. PP presented the analysis of alternative Sites and justification of selection. PP submitted that Site-I was selected for setting up the proposed washery. The reasons that Site – II, Site – III, and Site – IV have not been preferred for setting up the proposed washery are summarized below:

Site-II – Chasnalla Colliery Colony (49.4 Acre or 20.0 Hectare)

If this site is required, a total of 25+ Hectares shall be needed. Washery: 15 Ha, Railway Siding with Rapid Loading System: 5 Ha and Conveyor: 5 Hectares (which is not feasible; instead of that, road transportation is a better option.). Human habitations are present in the area proposed for washery. R&R will be required at a large scale, increasing the cost of the project. The area is coal-bearing; setting up a washery will cause blockage of coal resources. The underground mine infrastructure of the Chasnalla coal mine is present just adjacent to the boundary. The area is present in high flood level zone of Damodar River. The land falls inside the mine lease area of Tasra Coal Mine. 1260 trees will have to be felled at this location. The offtake route is a challenge and would involve passing through densely populated areas, which will be an issue from a safety point.

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Approximately 1500 families are present in the area proposed for washery. The site would require R&R, impacting the cost of the project. The land falls inside the mine lease area of Tasra Coal Mine. Cutting of 3215 Trees is expected for setting up of a Washery at this location. If this site is required, a total of 23+ Hectares shall be needed (Washery: 15 Hectares; Railway Siding with Rapid Loading System: 5 hectares; Conveyor: 4 Hectares). In this site, offtake infrastructure i.e., RLS will require additional set-up at proposed Site I and hence not prescribed.

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The site has a rich green cover. A large no of trees to the tune of 2169 will have to be felled at this location. Additional Land will be required at other locations for R&R of the displaced family, Railway siding and Rapid Loading System. If this site is selected, a total of 27+ Hectares shall be needed (Washery: 18-20 Hectares; Railway Siding with Rapid Loading System: 5 hectares; Conveyor: 3 Hectares). In this site, offtake infrastructure i.e., RLS will require additional set-up at proposed Site I and hence not prescribed.

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Reply: Detailed study w.r.t to transportation for all four sites has been done taking into consideration transport through Belt conveyor for raw coal & Rail mode for washed coal and has been addressed at sl.no. 5 & 6 of the Site Analysis Report. PP also submitted the KML showing the transportation scenario.

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Reply: All four sites have been studied for habitation around them and details of which have been given at sl.no. 4 & 17 of the Site Analysis Report. “Lions Public School” is present within a 100-meter radius of the land proposed for setting up of washery. PP further submitted that the school is running in an unauthorised manner, and it is planned to relocate the school at another premises situated approximately 3 Km away, where another facility of “Lions Public School” is already running. FCIL has communicated to the School for unauthorised occupation vide letter no – FCIS/EST-Rev-8(173)/19/364 dated – 11.09.2019. PP also showed the letter during the meeting.

The Committee deliberated on the reply submitted by the PP. The Committee also observed that the site PP has selected is located inside the FCIL Campus. Further, PP has proposed the transportation of Raw Coal from the conveyor belt and washed coal through the railway. The site has the least area requirement and R&R issues as ascertained by the PP. The Committee noted that there is a school just close to the proposed site. PP submitted that it is an unauthorized occupation. The Committee is of the view that PP shall submit an action plan for relocation of the school and students which is at a distance of 0.8 Km from the proposed site. The PP vide letter dated 29/02/2024 submitted its reply wherein it mentioned that “in discussion with FCIL Estate department we have identified a location nearer to present premises and proposed the same to school authorities. The Principal of the Lions Public School, Sindri has agreed and written a letter to the GM, I/C (Tasra & Chasnalla), SAIL dated 29/02/2024, that they are ready to relocate from the existing premises to a new location which is at a distance of 200 - 300 m from the present location.

Moreover, SAIL/KTMPL (MDO of SAIL) will bear the entire necessary infrastructure development expenses related to the construction of the new school and hence Lions Public School will have no financial expenditure for the same.”

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SAIL, through its MDO (KTMPL), is committed to facilitating the seamless relocation of the school to the new site, as directed by the committee, ensuring the complete satisfaction of the school authorities prior to the commencement of the proposed Tasra Coal Washery.

We hereby assure that the first site is available additional 2-3 more sites are also available as alternative options.”

The Committee noted that PP has identified the optional site to shift the school, PP has submitted an undertaking to construct the new school in lieu of the present school and Lion Public School will have no financial expenditure for the same, PP also submitted a letter dated 29/02/2024 from the Principal giving his consent to re-locate the school. Based on the submission PP was asked vide email dated 8/0/2024 that “PP should give the plan and assurance till the new school is incepted at full capacity, the students should not be shifted anywhere without their consent.” The PP vide letter dated 11/03/2024 informed that “We assure that school at new location will be functional well before Washery comes in Operation. Further, we assure that the shifting of school shall be done in due consent of the School administration and authorities”

Based on the submission of PP, the Committee is of the view that the grant of ToR should not be taken as a direction from EAC/MoEF&CC for shifting the school. The school management and families whose children are studying in this school are free to make their independent decisions in this regard.

Based on the discussion held and the document submitted the Committee recommended the proposal for a grant of ToR for the setting up of Tasra Coking Coal Washery Plant of capacity 3.5 MTPA in an area of 21 Ha, located at FCIL Campus, Town – Sindri, District- Dhanbad, Jharkhand, by Steel Authority of India Limited. The Committee in addition to standard ToR also prescribed the following Specific ToR.

3.1.5. Recommendation of EAC

Recommended

3.2. Agenda Item No 2:

3.2.1. Details of the proposal

Amalgamated Yekona I & II OC (Phase-I) by Western Coalfields Limited located at CHANDRAPUR, MAHARASHTRA			
Proposal For		Amendment in EC	
Proposal No	File No	Submission Date	Activity (Schedule Item)
IA/MH/CMIN/438539/2023	J-11015/381/2015-IA.II(M)	30/07/2023	Mining of minerals (1(a))

3.2.2. Project Salient Features

Agenda No 6.2

ANNEXURE - III

	भारत सरकार Govt. of India श्रम एवं रोजगार मंत्रालय Ministry of Labour & Employment खान सुरक्षा महाविदेशालय Directorate-General of Mines Safety	
NO: 010232 CZ Dhanbad Region No.II Perm 2025 272487		Date: 18/03/2025

From

Director of Mines Safety, Region no.2, Central Zone, Dhanbad.

To,

The Agent, Tasra Colliery, M/s SAIL-BSL Collieries

Subject: Permission under Regulation 196(3) of the Coal Mines Regulations, 2017 to conduct controlled deep hole blasting within 500m but beyond 100m of any permanent building or structure of permanent nature not belonging to mine owner at Tasra Colliery of M/s SAIL-BSL Collieries-modification thereof.

Dear Sir,

Please refer to yours on line application Id-272487 dated 17.02.2025 and letter No. Agent/Tasra/DGMS/2025/17 dated 15/02/2025 enclosing therewith surface plan of the mine, plan no. TA/Q/24/12 dated 05.07.2024/15.02.2025.

The matter has since been examined on the basis of the information furnished by you along with the application.

In exercise of the powers conferred on the Chief Inspector of Mines (also designated as Director-General of Mines Safety) under Regulations 196(3) of the Coal Mines Regulations, 2017 and by virtue of the authorization granted to me by the Chief Inspector of Mines (also designated as Director-General of Mines Safety) under Section 6(1) of the Mines Act, 1952, I, hereby modify the permission issued vide this directorates letter no.264619 dated 10.06.2024 and permit you to conduct controlled deep hole blasting within 500m but beyond 100m of any permanent building or structure of permanent nature not belonging to the owner in the area,bounded by A1,B1,C1,D1,E1,F1,G1,V16,V15,V14,V13,V12,V11,V10,V9,V8,V7,V6,V5,V4,V3,V2,V1,W1,X1,Y1,Z & A1 as shown on the plan no. TA/Q/24/12 dated 05.07.2024/15.02.2025 at TasraColliery of M/s. SAIL. subject to the following conditions being complied with:

1.1 No deep hole blasting shall be conducted within 100m from any village/bustees/ hutments/dwellings or any structure of permanent in nature not belonging to the owner. Further, no blasting shall be conducted within 100m of any residential quarters/buildings belonging to the mine owner. The restricted zone of 100m shall be demarcated on the ground by actual survey.

1.2 The management shall indemnify the occupants/owners of the houses/dwellings/buildings or other structures and the public authority concerned, if any, against danger to their property or injury to them or other persons arising out of operation conducted under the permission.

1.3 No working shall be made or extended to any point within 45m of any railways, or of any public works or of any public road or building or of other permanent structures not belonging to the owner without obtaining

prior permission under regulation 119 of the Coal Mines Regulations, 2017.

1.4 All overhead lines situated within 100m of the proposed blasting area shall be provided with cradle guards and at the time of firing and till end of blasting power transmission in the said overhead line shall be cut off.

2.0 No blasting in the opencast workings shall be done till such time that, the in charge of the blasting operation has ensured that, no person/vehicle passes on public road existing within danger zone (500m). For the purpose drop bar barrier shall be provided on both side of the road at a distance of 500m from the place of firing and guard shall be posted on the barrier and person/vehicle shall not be allowed to pass on the road during blasting and till the time all clear signal after blasting is obtained.

3.0 While blasting in area within 500m but beyond 100m of any buildings or permanent structures not belonging to the Owner, drilling and charging patterns as recommended in the study report by Department of Mining Engineering, BIT Sindri, Dhanbad, vide project No.CNP/BIT/MIN/2020/SS&BD-01 dated 29.07.2021 shall be followed and in case of any difficulties, close co-ordination with the experts of the concerned Scientific Agency shall be maintained to decide safe blasting.

4.0 Following values regarding maximum charge per delay and maximum charge per round shall be used in blasting.

Distance of structures/buildings from the blasting site (in meters)	Aggregate maximum charge per delay (in Kg).	Aggregate maximum charge per round (in Kg).
100	44.52	197.68
125	69.56	308.88
150	100.16	444.79
200	178.06	790.73
250	278.22	1235.52
300	400.64	1779.15
400	712.25	3162.94
500	1112.89	4942.09

4.1 Only electronic detonator initiation system shall be used while conducting blasting within 200m but beyond 100m of any permanent building or structure of permanent nature not belonging to mine owner and electronic detonator or Non-electric initiation system shall be used for blasting beyond 200m. Initiation of blasting round shall be done in such a manner that the detonation front of waves generated during blasting moves away from the structures/buildings.

4.2 The peak particle velocity (PPV) of blast-induced ground vibration of each round of blasting shall be measured and the records of the same shall be maintained in a bound paged book kept for the purpose duly counter signed by blasting officer and manager. PPV near any permanent buildings or structures of permanent nature not belonging to mine owner shall not exceed the limit prescribed in the table below as mentioned in DGMS Circular No. 7 of 1997:

Type of structure	Dominant excitation frequency, Hz		
	<8 Hz	8 – 25 Hz	>25 Hz
(A) Buildings/structures not belonging to the owner			
1.Domestic houses/structures (Kuchcha, brick & cement)	5	10	15
2. Industrial buildings	10	20	25
3. Objects of historical importance and sensitive	2	5	10

structures			
(B) Buildings with limited span of life and belonging to owner			
1. Domestic houses/structures	10	15	25
2. Industrial buildings	15	25	50

For the purpose required instrument/seismograph/vibrograph, triggered by geo-phone and capable of giving digital output, shall solely be made & kept available at the mine.

5.0 All conditions for deep hole blasting in opencast mine as stipulated in Gazette Notification, G.S.R. 985(E), dated 01.10.2018 shall be strictly complied.

5.1 As required under condition 1 of G.S.R. 985(E), dated 01.10.2018, the scientific study to assess the effect of blast induced ground vibration on the stability of the pit and dump slope and to recommend measures for maintaining long term stable pit and dump slope for safe workings of the mine within six months of issue of this permission.

5.2 All conditions for transport of explosives in bulks as stipulated in Gazette Notification, G.S.R. 982(E), dated 01.10.2018 shall be strictly complied.

5.3 All conditions for conducting blasting in fire area in opencast mine as stipulated in Gazette Notification, G.S.R. 986(E), dated 01.10.2018 shall be strictly complied.

5.4 All precautions as laid down in circular no. 4 of 1983 and circular no. 14 of 2020 shall be strictly followed.

5.5 The Code of Practices framed by the Manager in respect of drilling, handling and transportation of explosives in bulks, charging, steaming, warning of persons, taking shelter, firing of shots, extraction of underground pillars by opencast method and blasting in fire area shall be strictly complied with.

5.6 The guide lines as specified in D.G.M.S. (Tech.) (S&T) circular No. 6 of 2007 to protect the important underground features like coal pillars, water dams and ventilation & isolation/sectionalisation stoppings etc. falling within 100m in any direction of the blasting site shall be followed.

6.0 To control flying fragments resulting out of blasting from projecting beyond a distance of 10metres from the place of firing, following precautions shall be taken:-

- i. No shot hole shall be fired in crushed, broken or fractured ground/strata.
- ii. Blasting shall be done against a free face only. Blasted material shall be cleared off before commencement of drilling operation for succeeding round.
- iii. Top stemming column shall not be less than the burden.
- iv. Only such stemming material that is free from pebbles and stone chips shall be used. Moist sand shall be used for stemming of deep holes.
- v. All the blasting operation shall be conducted with muffling arrangement strictly. Muffling of holes should be done with conveyor belt or wire netting pieces (1.8m x 1.2m) overlain by 3 to 4 sand bags each 35.0-40.0kg by weight or alternatively heavy duty blasting mats shall be used.
- vi. Variation in inclination of holes shall be within 5 degrees to avoid variation in crest and toe burden.
- vii. In an undercut bench face, the quantity of explosives to be charged within undercut portion shall be suitably reduced.
- viii. In case water is encountered in any shot-hole, either the shot-hole shall be dewatered by blowing compressed air into the hole or the explosive column shall be gently pushed down by wooden rod and sufficient time given for the explosive column to sink to the desired depth before the round is fired.

ix. *No secondary blasting/boulder blasting shall be carried out within 500m from any public place.*

7.0 In case, with any of the deep-hole rounds fired, the PPV of ground vibrations resulting out of blasting is observed to be more than **10mm/sec** at dwellings/other structures or the flying fragments project to a distance beyond 10m from the place of firing/blasting, operations shall be discontinued and this Directorate shall be informed immediately and blasting operations connected with this permission shall not be resumed unless express permission in writing is accorded by this Directorate.

8.0 Owner, Agent and Manager shall provide substantially built shelter to shot firer and his assistants for taking shelter in danger zone. Blasting shelter without bottom plate shall not be used for taking shelter. Blasting shelter shall not be placed in the direction of free face of blasting site. The shot firer and his assistant shall take shelter in the blasting shelter while firing the shots.

9.0 The preparation of charges and charging & stemming of holes shall be carried out under the personal supervision of an overman (shot firer), who shall fire the shots himself.

10.0 ADDITIONAL CONDITIONS:

10.1 In case of any actual or apprehended danger of any sort arising out of the blasting operation is observed or noticed the blasting operation shall be stopped forthwith and this office shall be informed immediately.

10.2 This permission is being issued specifically under the regulation mentioned above & without prejudice to any other provisions of law which may be or may become applicable at any time.

10.3 In the event of any change in the circumstances connected with this permission which is likely to endanger the life of persons employed in the mine or the mine, the mining operations for which this permission has been granted shall be stopped forthwith and intimation thereof shall be sent to this Directorate. The said mining operation shall not be resumed without express and fresh permission in writing from this Directorate.

10.4 If at any time any one of the conditions, subject to which this permission has been granted, is violated or not complied with, this permission shall be deemed to have been revoked with immediate effect.

10.5 Except where otherwise provided for in this conditional permission, all provisions of the Coal Mines Regulations, 2017 shall be complied with. This conditional permission is subject to amendment or withdrawal at any time if considered necessary in the interest of safety and or conservation of coal.

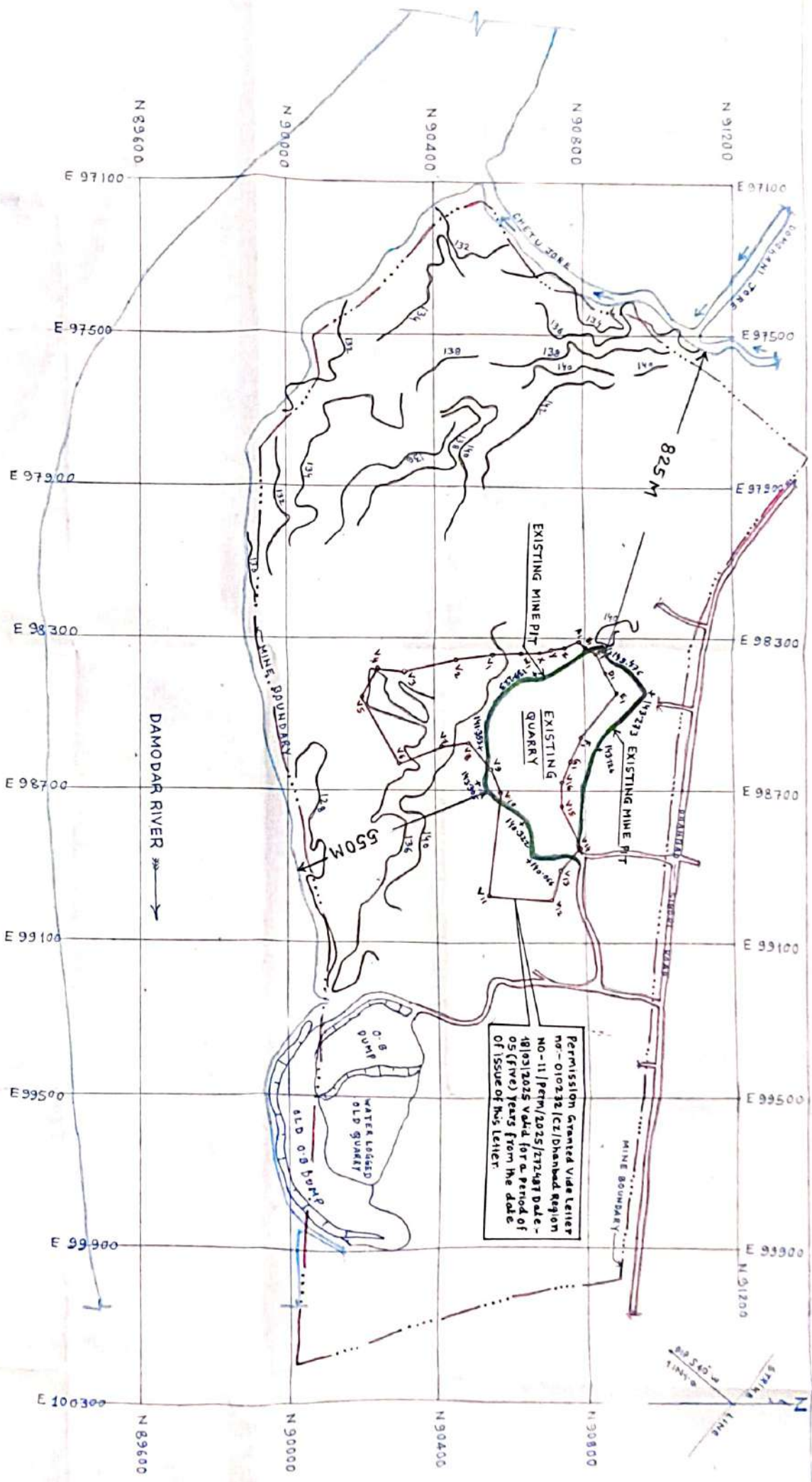
10.6 This permission shall remain valid for a period of 5 (five) years from the dated of issue of this letter.

Your Faithfully



MANOJ KUMAR SAHOO (DIRECTOR - DHANBAD REGION NO.II)

THIS IS A SYSTEM GENERATED DOCUMENT, DOES NOT REQUIRE ANY SIGNATURE.



INDEX -

MINE BOUNDARY SHOWN THUS :- - - - - -

EXISTING MINE PIT SHOWN THUS :- [Symbol]

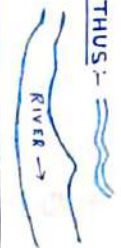
ROAD SHOWN THUS :- = = = =

PERMISSION LINE SHOWN THUS :- [Symbol]

CONTOUR LINE SHOWN THUS :- [Symbol]

CHETU JORE/DOMOHANI JORE SHOWN THUS :- [Symbol]

DAMODAR RIVER SHOWN THUS :- [Symbol]



PLAN NO :- TA/01/SUPERIMPOSITION/25/29 DT-16.04.25
STEEL AUTHORITY OF INDIA LTD.
 BSL-COLLIERIES
 SURFACE PLAN
 TASRA COLLIERY
 SUPERIMPOSITION OF EXISTING QUARRY OVER
 APPROVED MINING PLAN NO 8 VIDEDRG NO HQ OCM
 002087 REV NO.2 AFTER CHANGE OF SCALE
 SCALE=1:8000
 CERTIFIED THAT THE PLAN IS CORRECT
 BSL/16/04/25
 SURVEYOR
 [Signature]
 MANAGER

**KALYANESWARI TASRA MINING PRIVATE LIMITED**

FLAT NO.603, PINE TOWER, C/O: APANO GHAR,
TAPOWAN COLONY, NAWATANRALIAS GOSAINDI,
DHANBAD, JHARKHAND - 828109.
E Mail: info@ktmpl.co.in

**ANNEXURE-II****WORK ORDER**

Details of Service Provider	Details of Billing Address	Work Order No : 6000041117 Work Order Date : 29.08.2024 Amendment :0
Name : Indian Institute of Technology	Name :KT MPL-MDO	
Address :GROUND FLOOR, IIT ISM, ADMINISTRATI JHARKHAND	Address :Sindri, DHANBAD,JHARKHAND - 828122	Site :Kalyaneswari Tasra Mining Pvt (5885)
Vendor code :508336		Quotation Ref :
PAN No :AAAAI0686D		Quotation Date :
State,:Jharkhand	State :JHARKHAND	PR Ref :
State Code :20	State Code :20	Delivery Address
GSTIN/Unique ID :20AAAAI0686D1ZA	GSTIN/Unique ID :20AAKCK4699L1Z0	Site Name : KT MPL-MDO
		Address : Sindri, , DHANBAD,JHARKHAND 828122

Comprehensive Hydrological Study to assess the impact of Nalas and Damodar River on Kalyaneswari Tasra Mining Pvt.Ltd. Mining area, Tasra, Sindri#

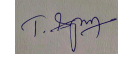
WO Period From DT: 29.08.2024

WO Period To DT: 31.08.2025

S.No	HSN Code/SAC	Desp. of Goods/Services	Total Taxable Value	CGST Rate	CGST Amt	SGST/ UTGST Rate	SGST/UTGST Amt	IGST Rate	IGST Amt	Amount(INR)
1		To Provide the Comprehensive	15,000,000.00	9%	1,350,000.00	9%	1,350,000.00	0 %	0.00	17700000
Total			15,000,000.00		1350000		1350000	0		17700000
Basic Price + Tax			17,700,000.00							
Total			17,700,000.00							

Total Value in Words : ONE CRORE SEVENTY SEVEN LAKH RUPEES ONLY

WORK ORDER



Commercial Dept
Prepared By

PROJ. DIRECTOR

COO

DGM Civil

CA - Site

AGM (PUR)

CEO

ANNEXURE - IV

10/2011

Legend

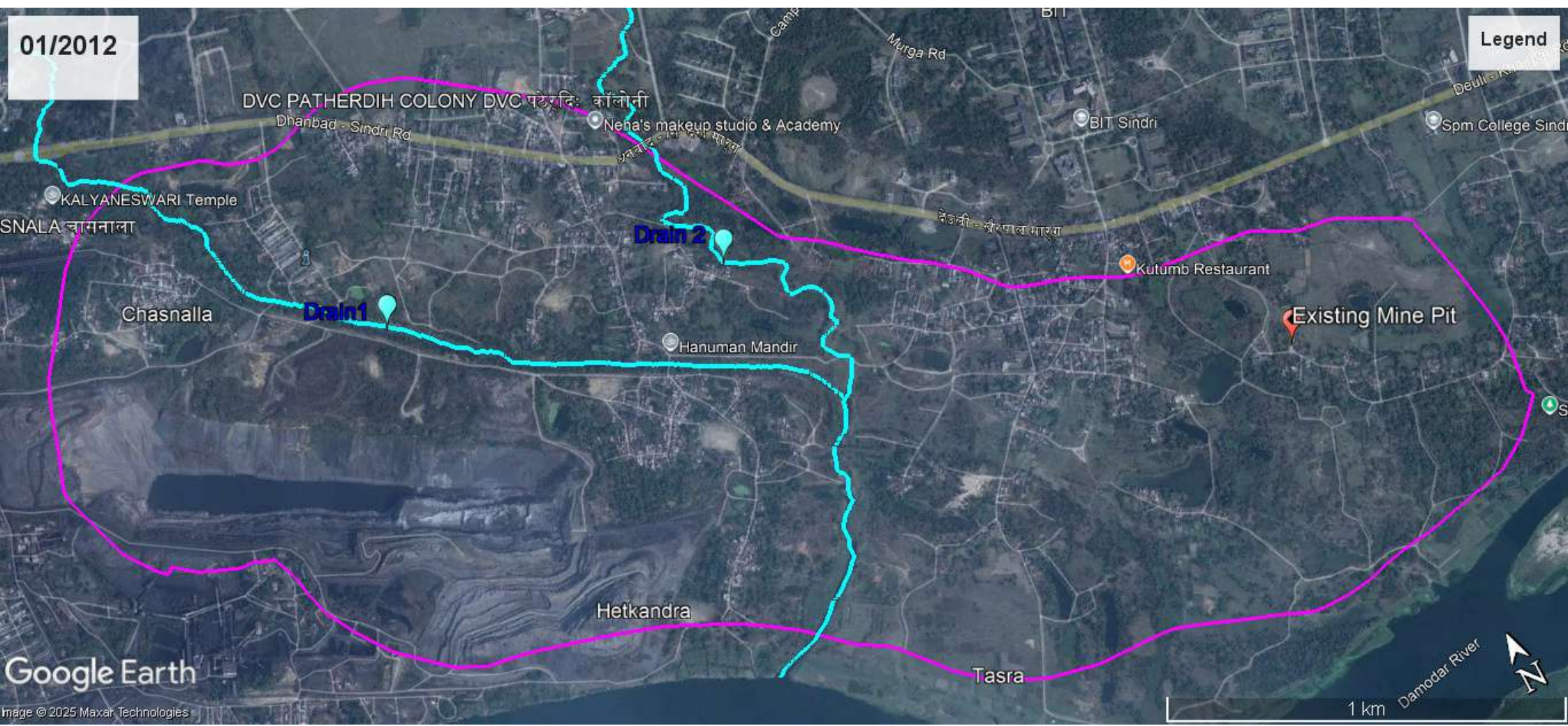


Google Earth

Image © 2025 Maxar Technologies

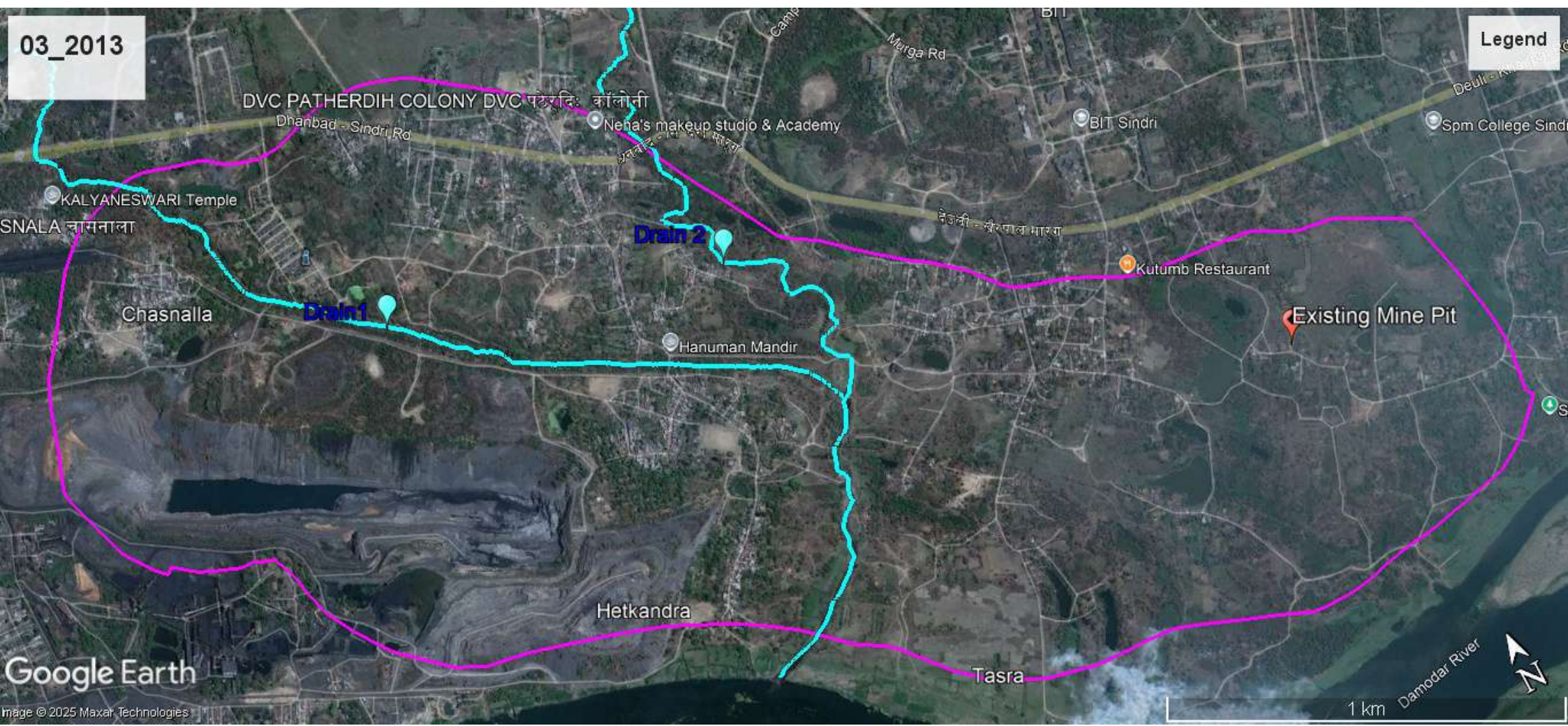
01/2012

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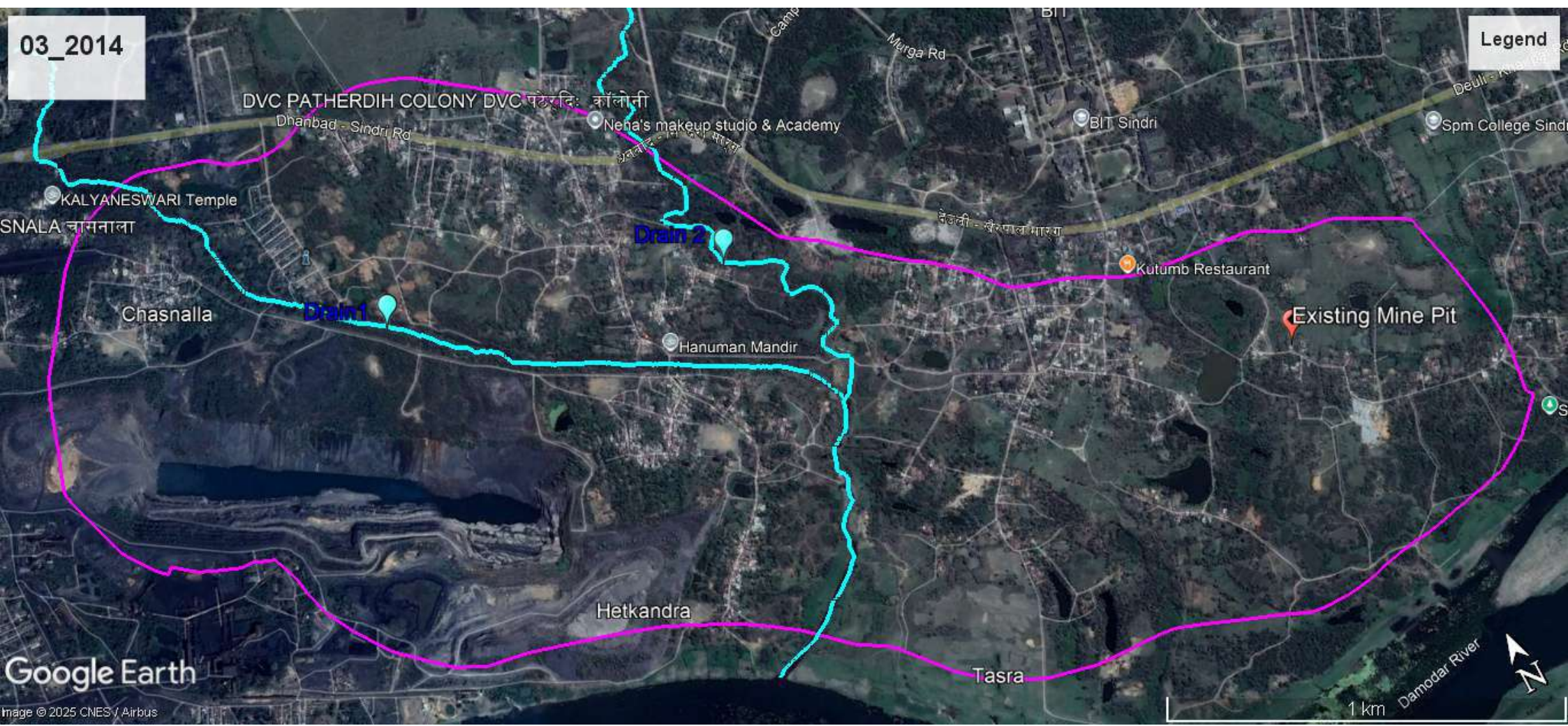
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Legend



03_2014

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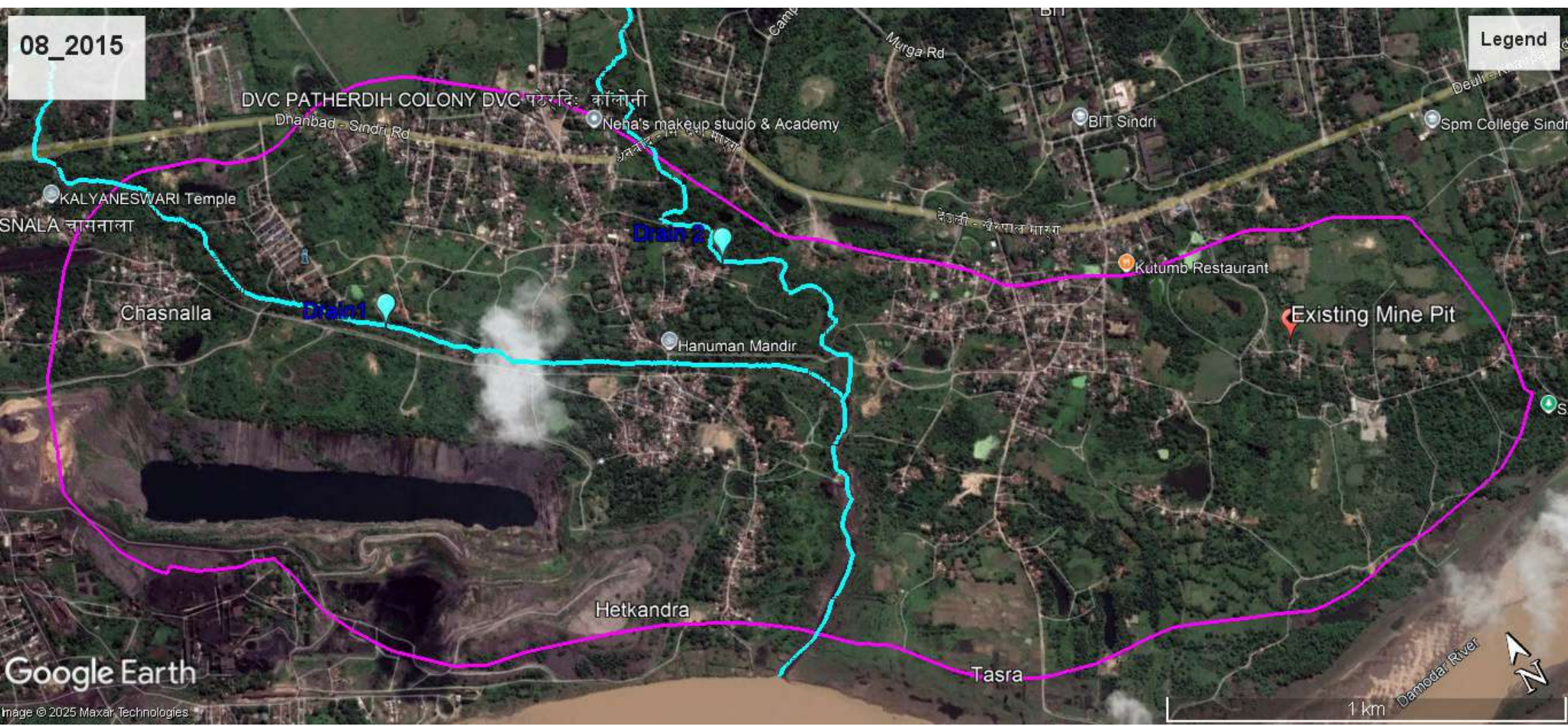


Google Earth

Image © 2025 CNES / Airbus

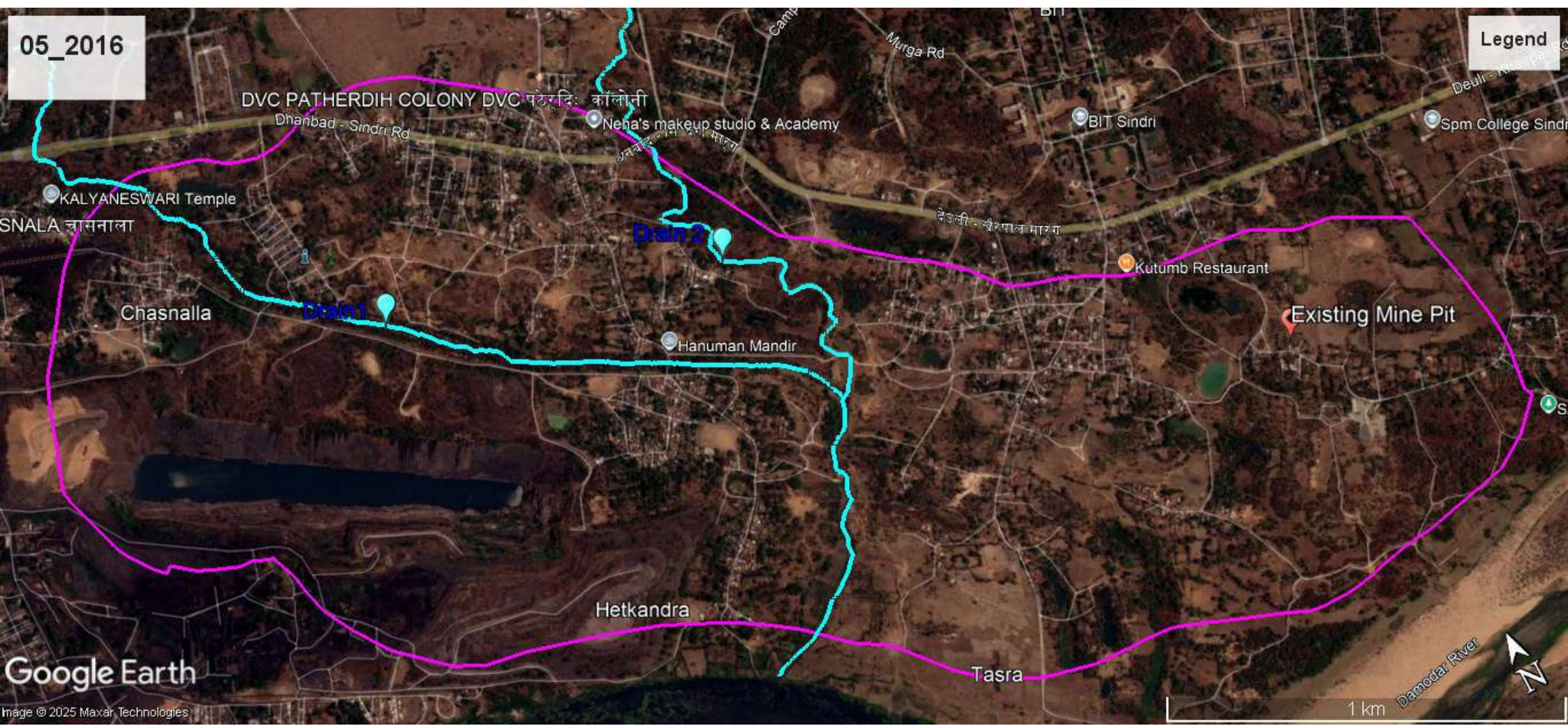
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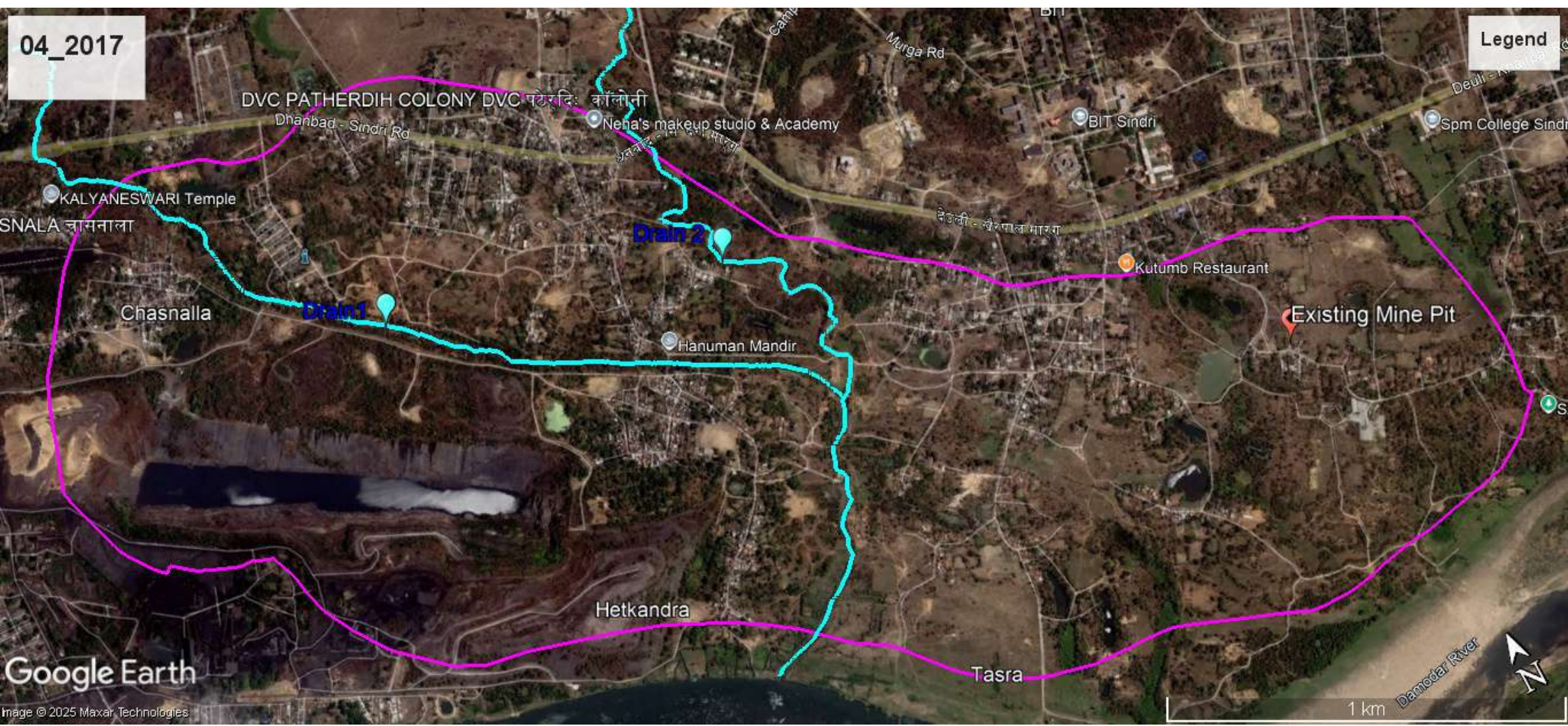
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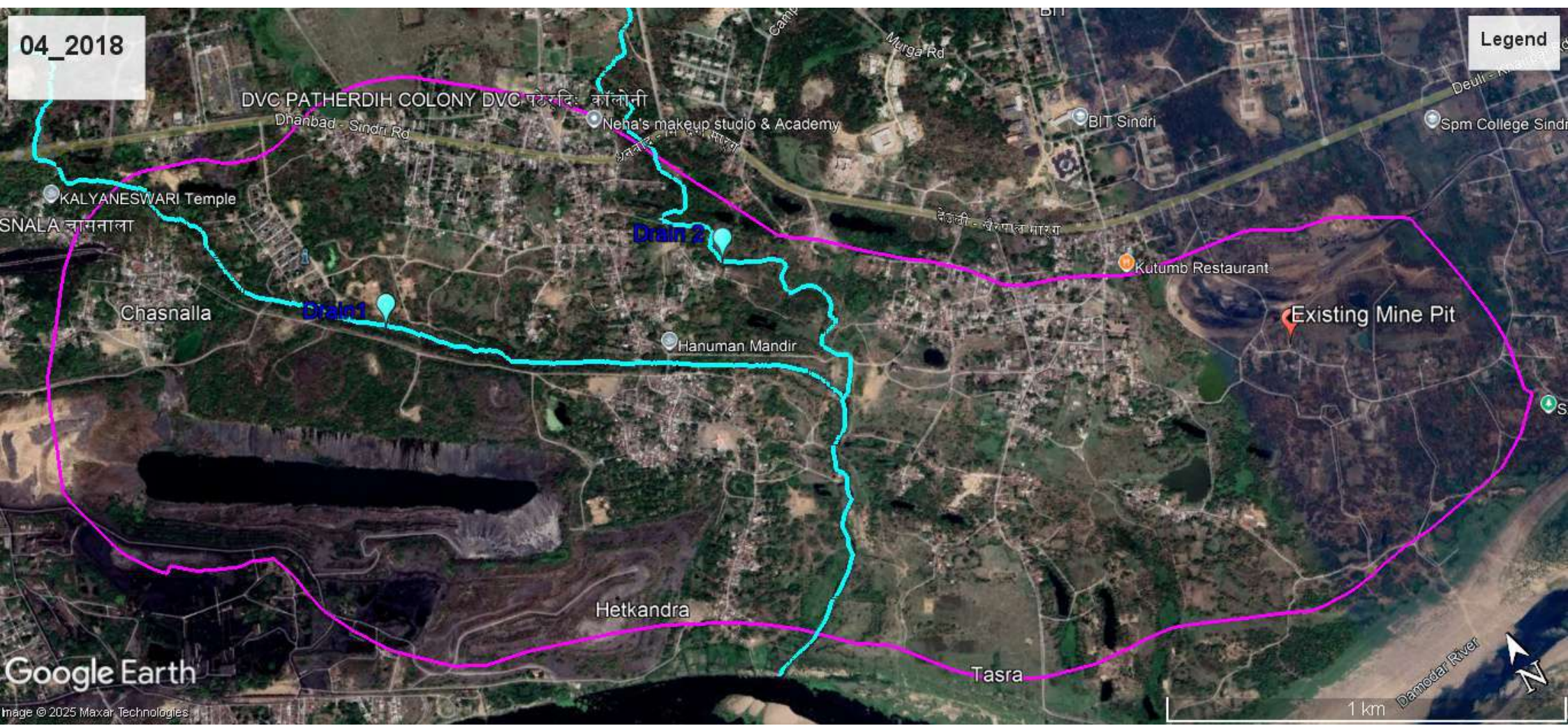
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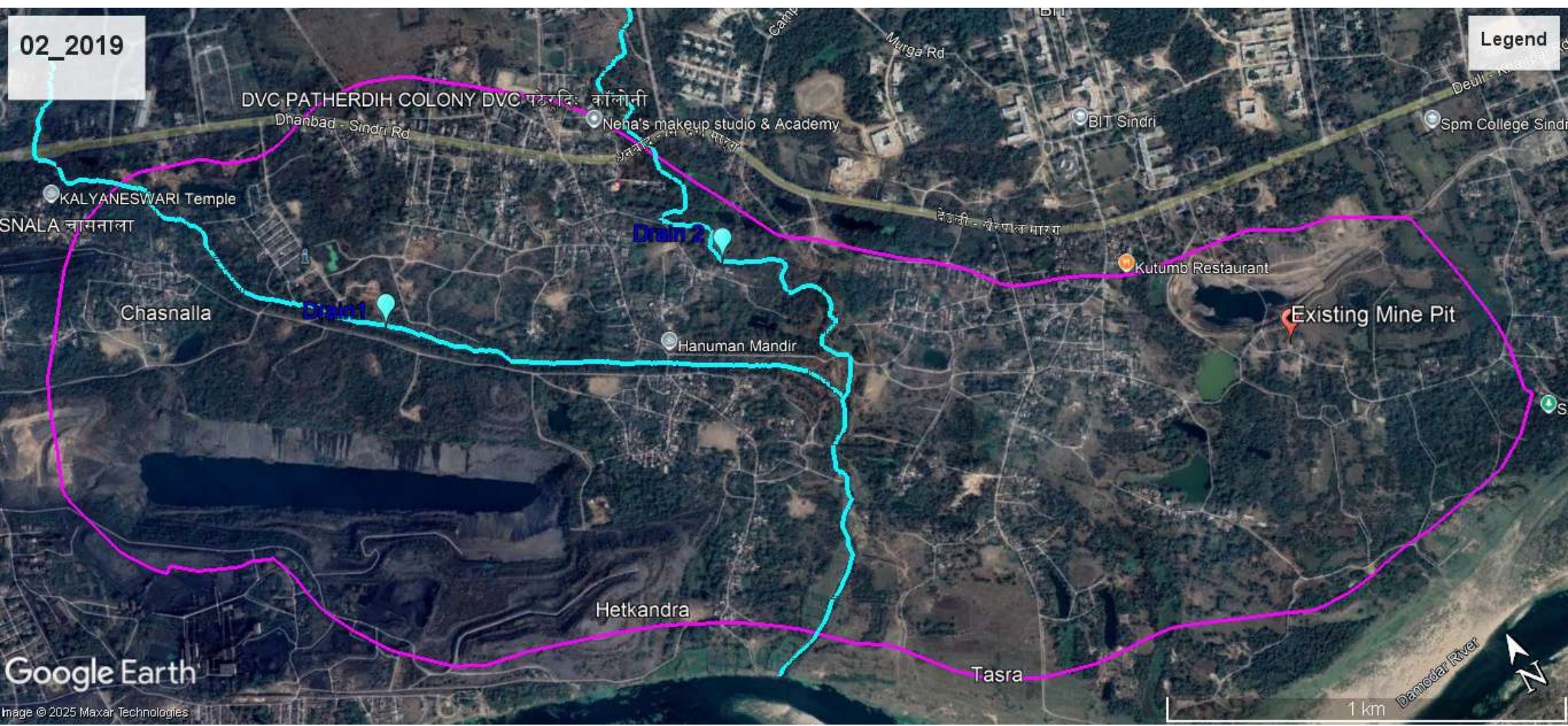
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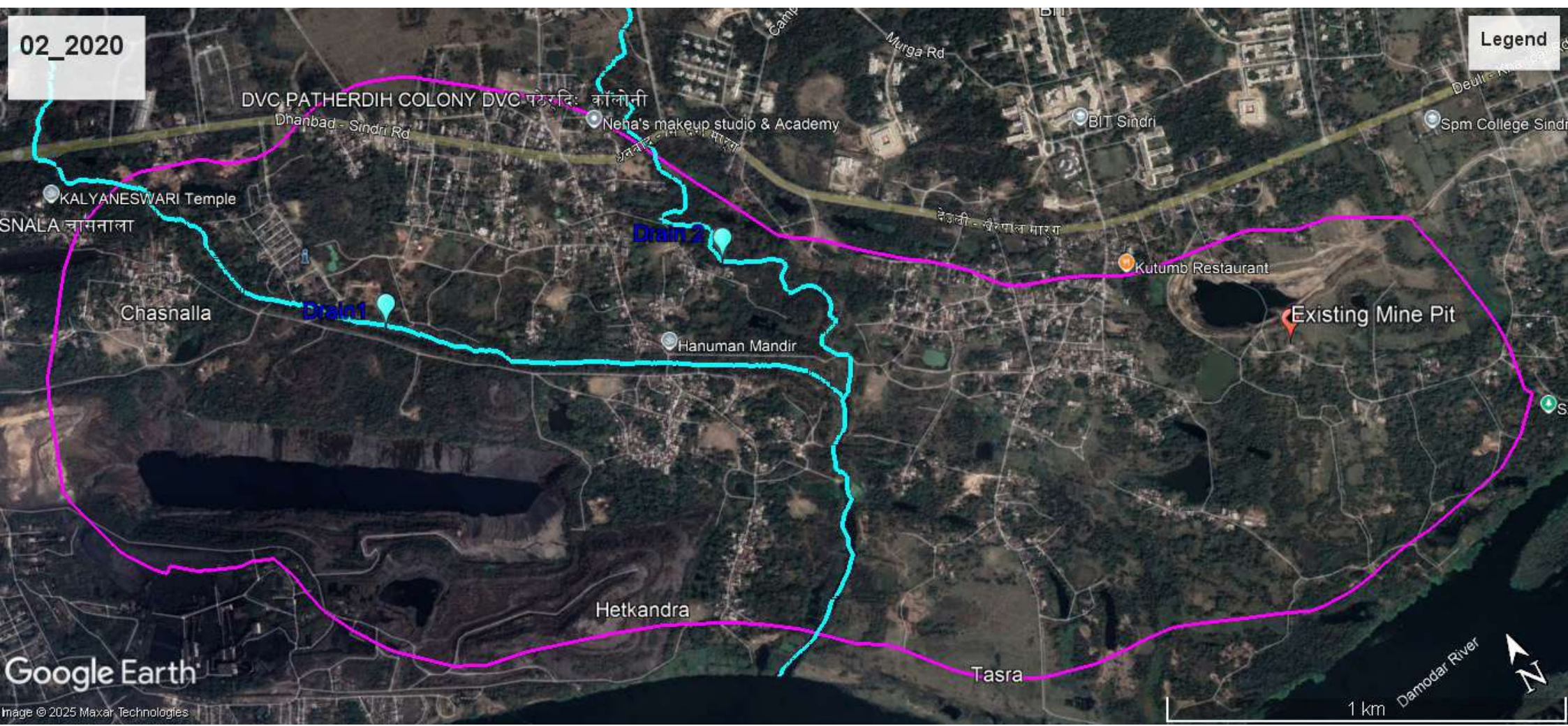
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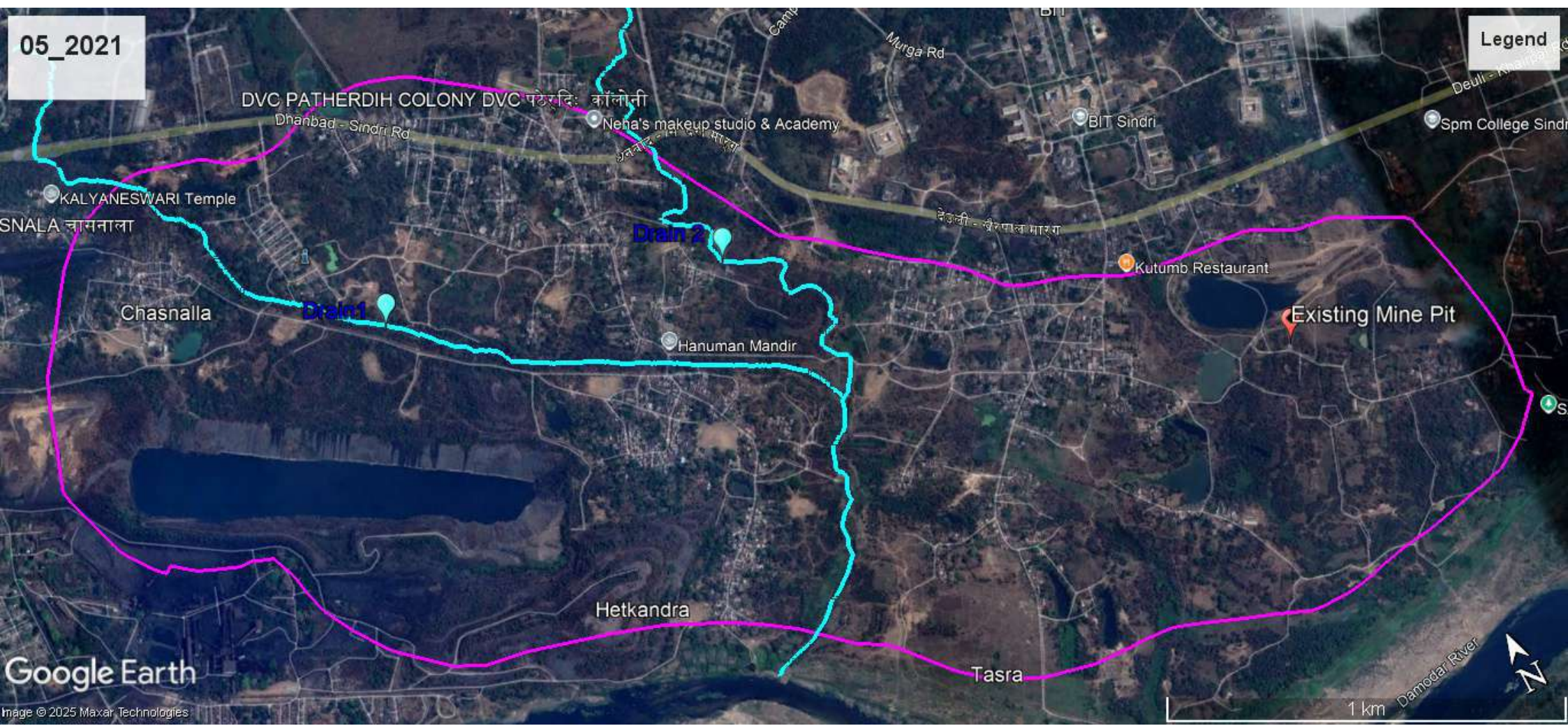
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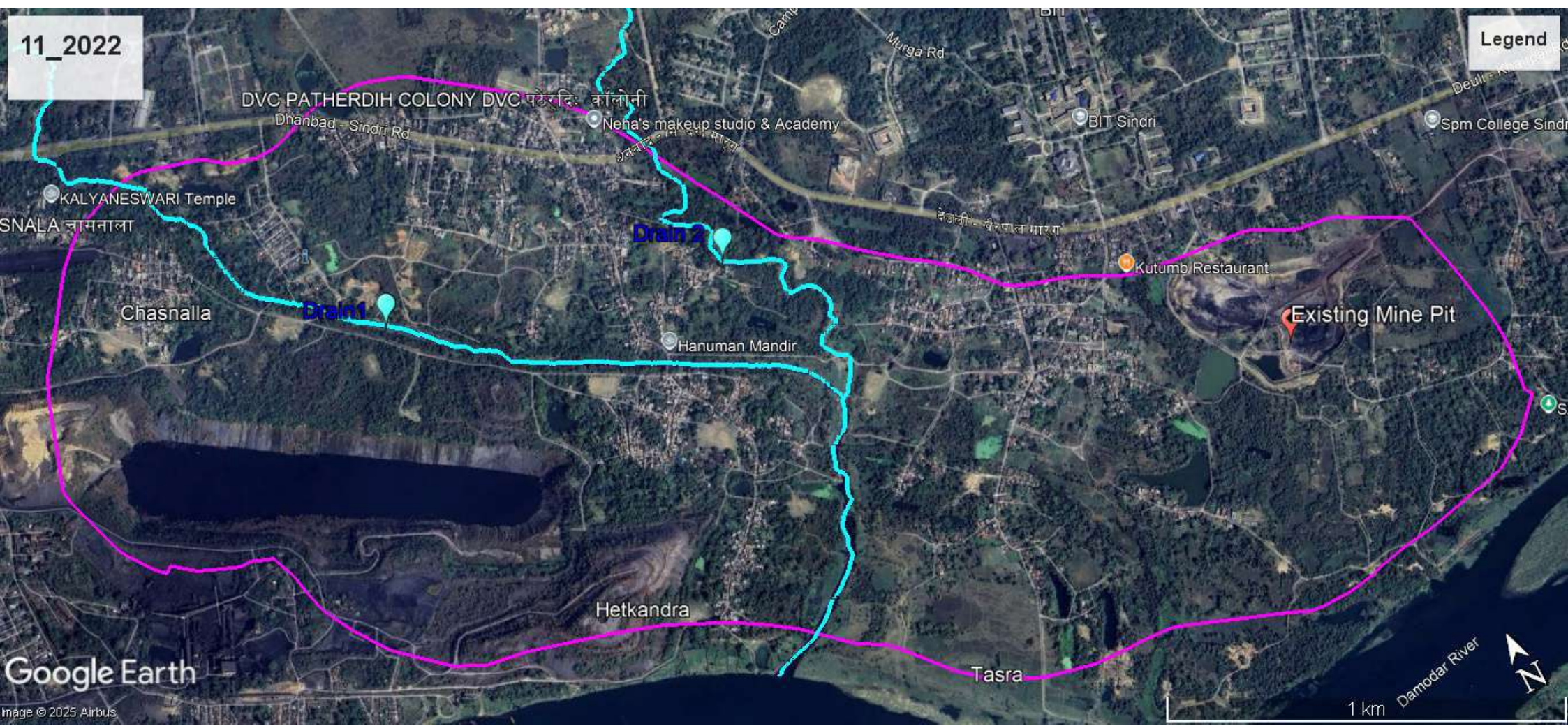
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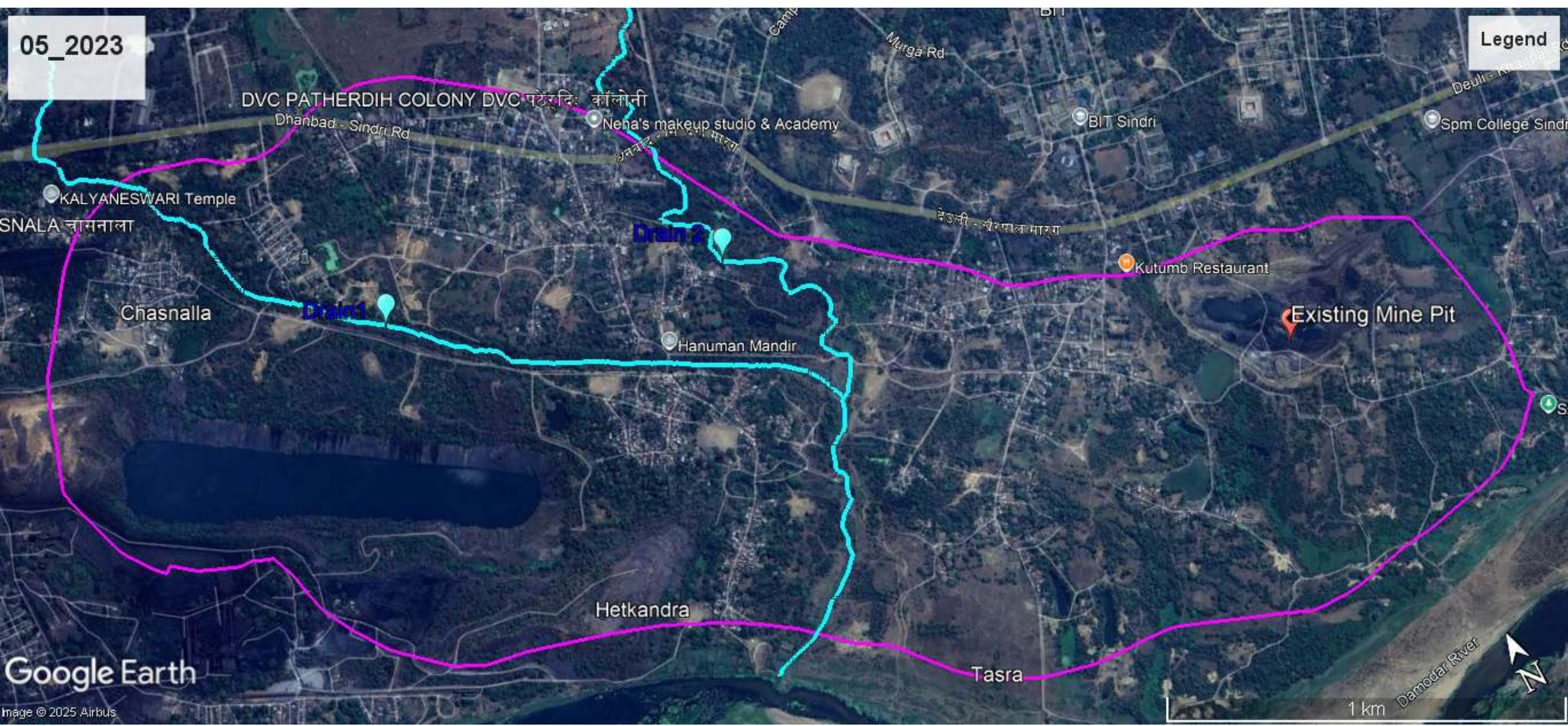
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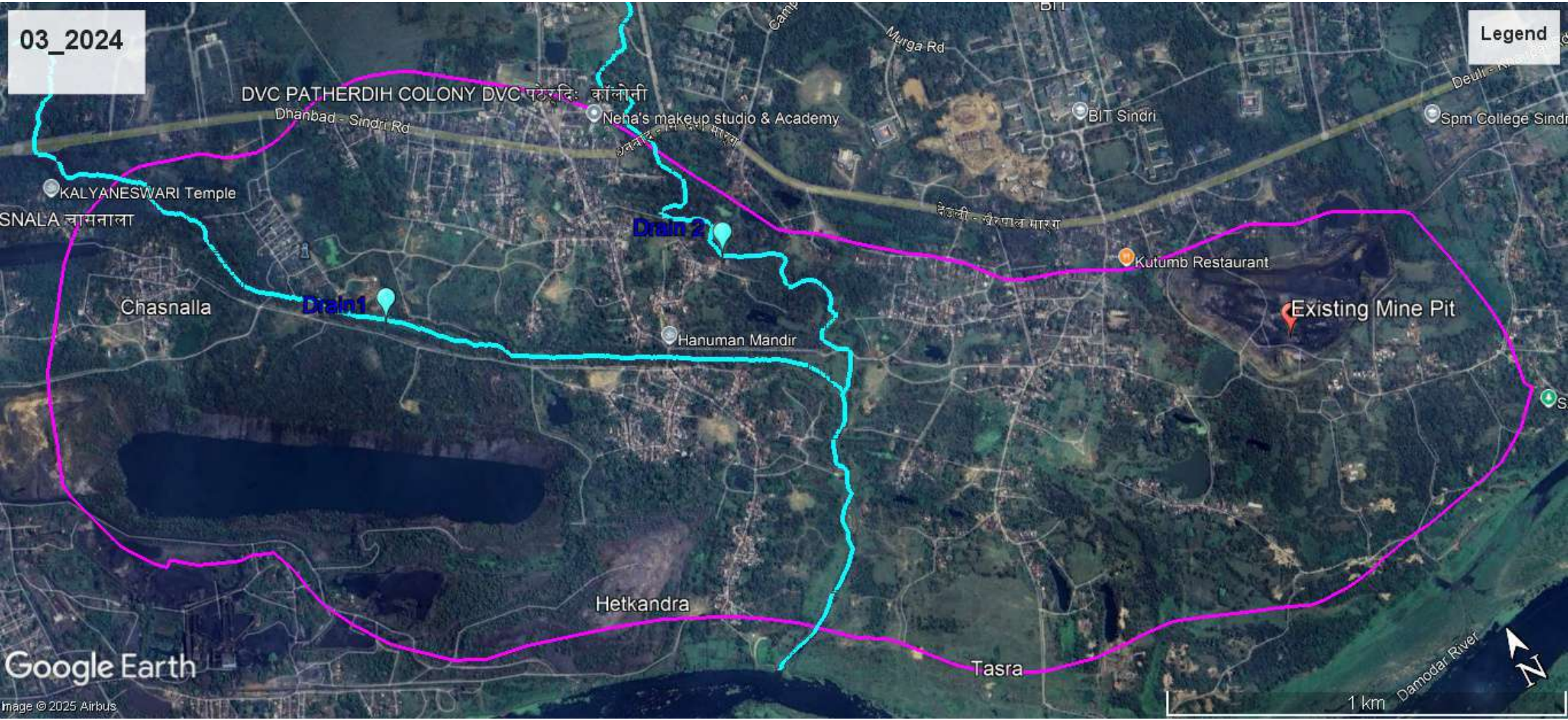
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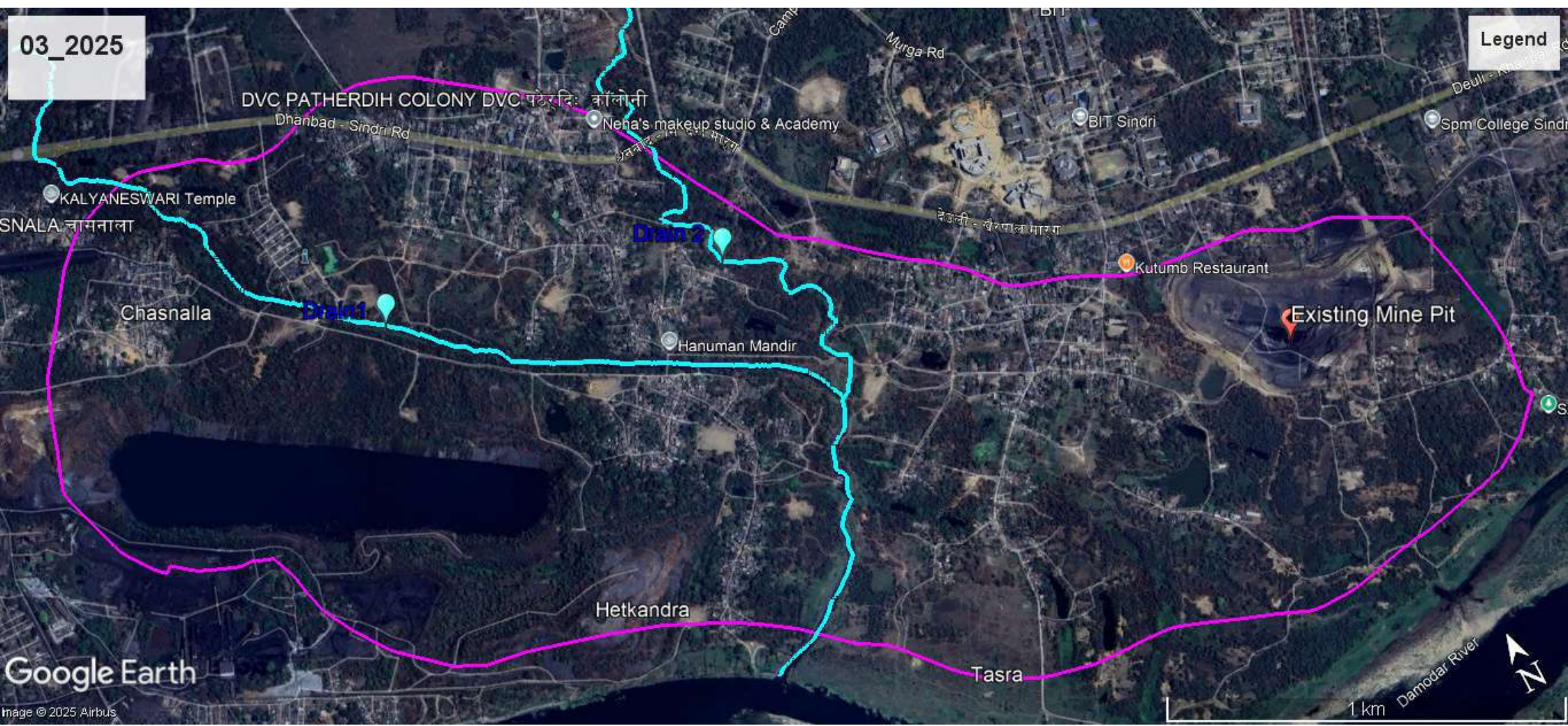
03_2024

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03_2025

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ANNEXURE - V

Miscellaneous Photographs



Tarpaulin covered trucks for coal transportation

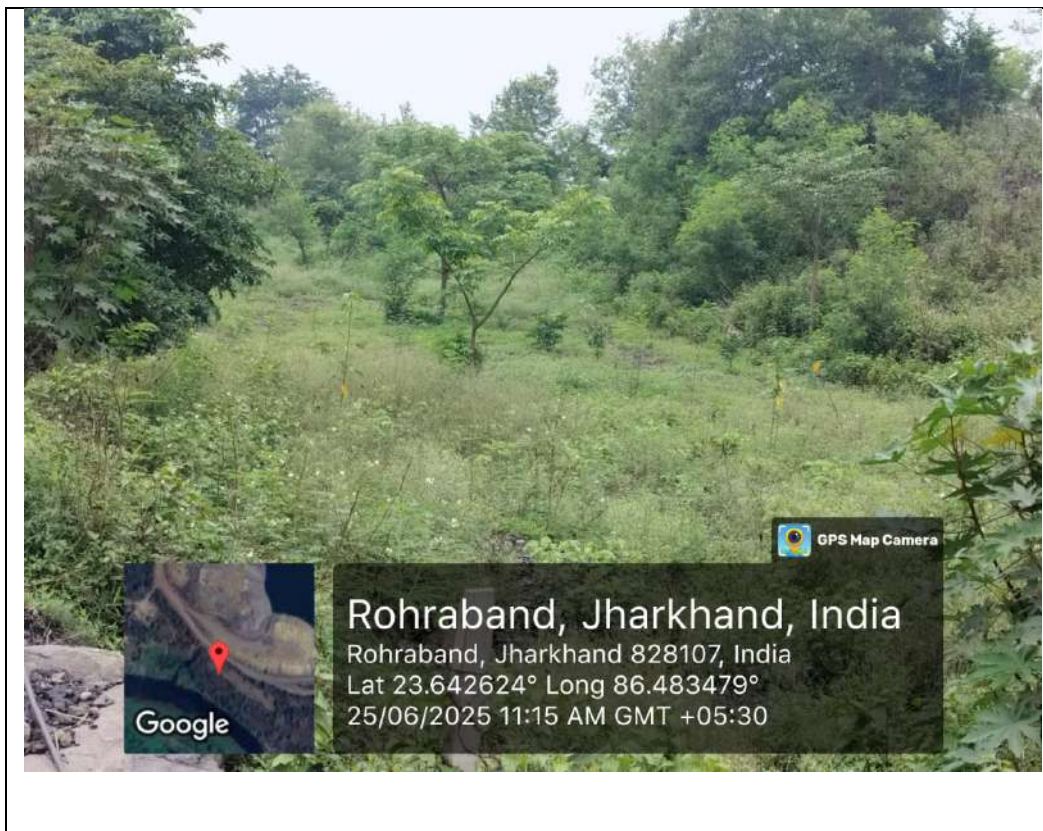


Toe wall along the OB dump

Miscellaneous Photographs

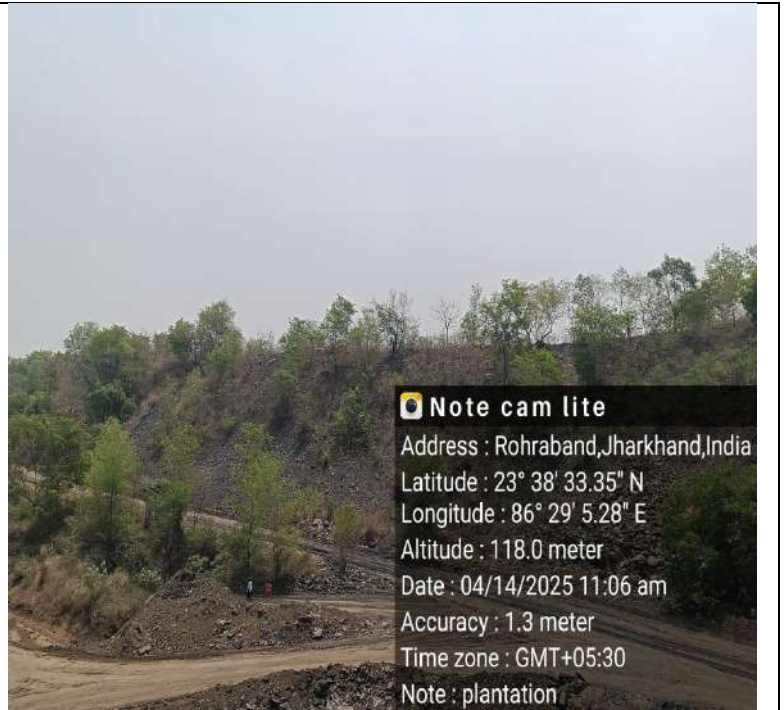


CAAQMS INSTALLED AT PROJECT SITE



Plantation

Miscellaneous Photographs



Plantation



Construction of Garland Drain

Miscellaneous Photographs



Garland Drain

Miscellaneous Photographs



शुद्धि :- A Saydly talk

11/06/2023

विभक्ति :- Take - 5 श्री 5-5

Take - 5 :-

1) ठोड़ी ठोड़ी।

2) कैंची।

3) खसारी को पहाड़ी।

4) एकादशी का भिखारी की।

5) गिरा डाली गड़ी।

5-5 :-

1) short

2) standardize

2) shine

3) set in order

3) sustain

Sl.No.	Name	designation	शरीरवादी
1	Akshdeep	v.i.p	Chief
2	Chandrar K.R	logistic	"Hind" name
3	Somesh	S. asst.	Specialist
4	Vikash	S. asst.	Praka chandrar
5	Omish	teacher	Prakash chandrar
6	Murali	Graduate	Prakash chandrar
7	Shrip Yadav	v.i.p	Prakash chandrar
8	Shamir	v.i.p	Prakash chandrar
9	Shamir	v.i.p	Prakash chandrar
10	Niraj	v.i.p	Prakash chandrar
11/06/2023	Kandhar	v.i.p	Prakash chandrar

Daily Safety Talk



Ship :- A Supply talk

Slb) 9093

Definition :- Unmanned act is Unmanned condition

Unmanned act :- अनुमानित कार्य वह है जो कारखाने पर सुरक्षा के लिए कराया गया जल्दी से करने के लिए अंतरा जवाबदाारी या अनुमानित के कारण होता है।
जैसे कि बिना सुरक्षा उपकरणों के काम करना होता है।

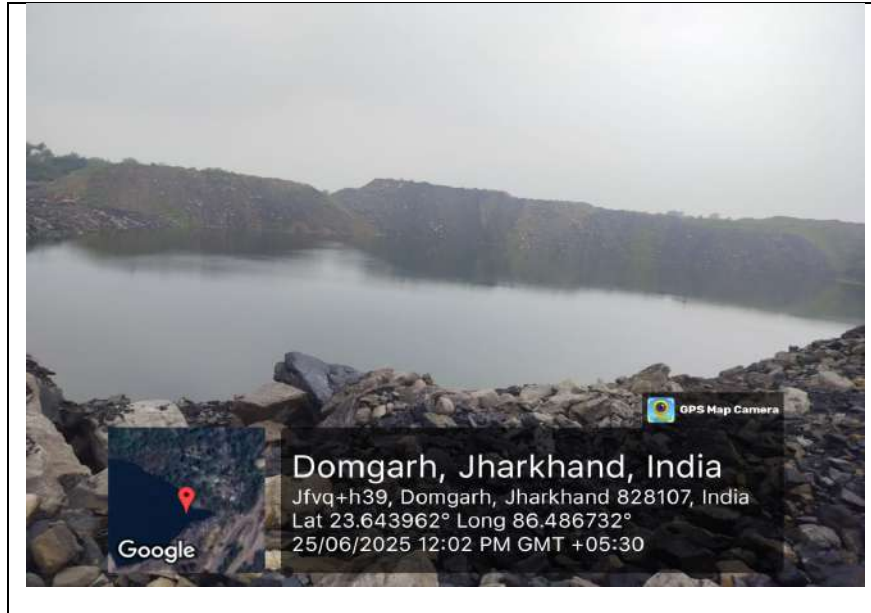
Unmanned condition :- अनुमानित स्थिति वह है जो कारखाने पर सुरक्षा के लिए कराया गया है। या बिना सुरक्षा उपकरणों के खराबी, मरिमा की जल्दी या अंतरा लीकी से हो सकती है।

Note :- Unmanned act और Unmanned condition दो अलग-अलग चीजों के लिए SOP का पता कर सुरक्षा उपकरणों का उपयोग करने और बिना सुरक्षा उपकरणों के काम करना या बिना को रिपोर्ट कर जो खराबी का कारण बन सकता है।

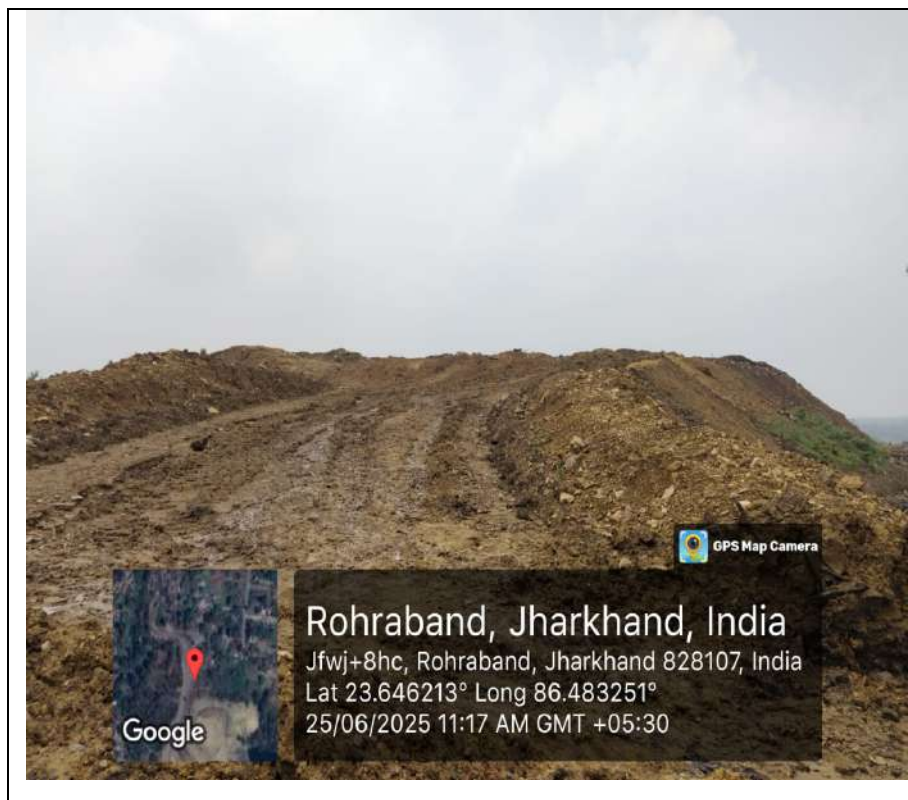
S.No.	Name	Designation	Signature
1	Nitesh Pandit	SA (KMP)	28/2/2019
2	Suresh Pandit	v.op	Panda, lower
3	Chandran Kumar	Logistics	Samir Mandal
4	Sameer Mandal	Supply act	Nitesh Chaudhary
5	Vikash Chaudhary	Supply act	Rishi
6	Rishi Kumar	v.op	on slip
7	Rangesh	v.op	Sameer Mandal
8	Sameer Mandal	Coal ass.	Samir Mandal
9	Samir Mandal	Coal ass.	Samir Mandal
10	Samir Mandal	T. Driver	Samir Mandal
11	Samir Mandal	v.op	Samir Mandal
12	Samir Mandal	v.op	Samir Mandal

Daily Safety Talk

Miscellaneous Photographs

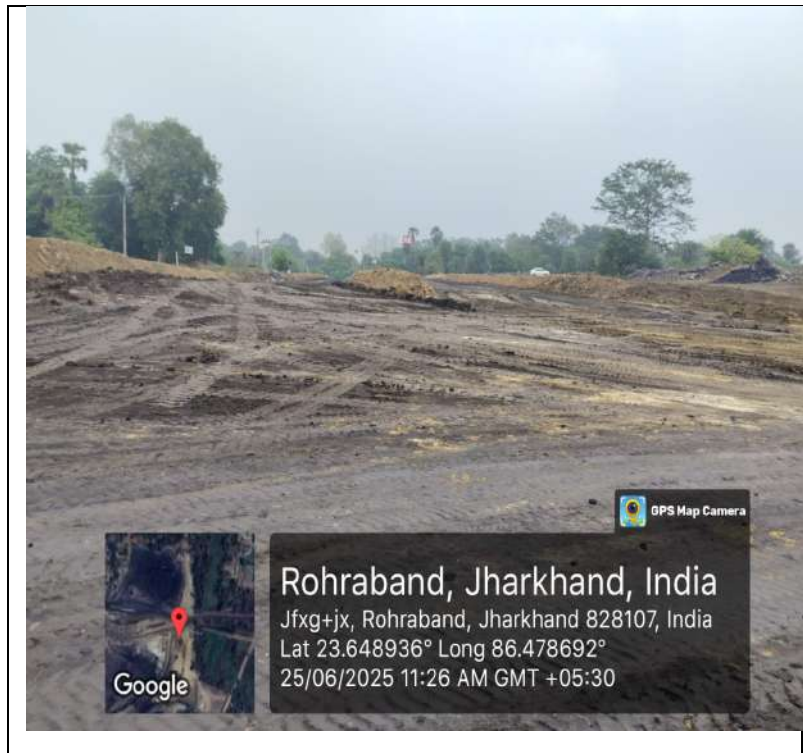


Source of water for project and ground

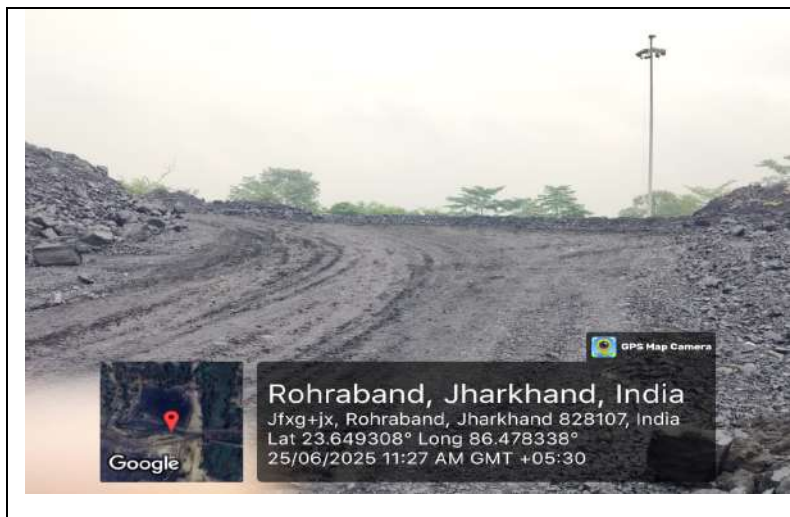


Top Soil Dumpyard

Miscellaneous Photographs



Haul Road



Coal stock yard after Water Sprinkling

Miscellaneous Photographs



ETP installed at Project site

ANNEXURE - VI



ADITI R&D SERVICES

Testing Laboratory

NABL ACCREDITED

(A Constituent Board of Quality Council of India)

ISO/IEC 17025:2017, ISO 9001:2015, ISO (OHSAS) 45001:2018 Certified

Plot No. - I-B-17 (P)
Sindri, Industrial Area,
P.O. - Domgarh, Dist. - Dhanbad
Jharkhand - 828107
Email ID: sindriaditi@gmail.com
Website: aditirndservices.com
Phone: 0326-2952377 (O),
Fax: 0326-2952377
Mobile: 09471358492, 09431512608

Ref. No.: - ARDS/25-26/AAQ/1

Date: 12/06/2025

TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA - 828135, DIST. - DHANBAD
- Work Order P.O. NO. & Date: 6000036592 & Date : 29.01.2024
- Date of Sample Collection : 04/06/2025 - 05/06/2025
- Date of Testing : 06/06/2025 - 08/06/2025
- Test Procedure : As per IS - 5182
- Sampling Location : NEAR BIT HOSTEL.

TEST RESULTS

SI No.	L3			NAAQ - CPCB STANDARD
	Avg. Ambient Temperature	Average Relative Humidity (%)	SAMPLING LOCATION NEAR BIT HOSTEL	
	33	54		
Particulars	Value			
1.	Particulate Matter (PM ₁₀), µg/m ³		64.80	100 µg/m ³
2.	Particulate Matter (PM _{2.5}), µg/m ³		37.23	60 µg/m ³
3.	SO ₂ , µg/m ³		21.58	80 µg/m ³
4.	NO ₂ , µg/m ³		32.68	80 µg/m ³
5.	NH ₃ , µg/m ³		14.20	400 µg/m ³
6.	CO, mg/m ³		0.52	4 mg/m ³
7.	Pb, µg/m ³		BDL	1 µg/m ³
8.	As, ng/m ³		BDL	6ng/m ³
9.	Ni, ng/m ³		BDL	20ng/m ³
10.	Benzene, µg/m ³		BDL	5 µg/m ³
11.	Benzoapyrene, ng/m ³		BDL	1ng/m ³
12.	Ozone, µg/m ³		14.65	180 µg/m ³

Sr. Chemist
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

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Ref. No.: - ARDS/25-26/AAQ/2

Date: 12/06/2025

TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA - 828135, DIST. - DHANBAD.
- Work Order P.O. NO. & Date: 6000036592 & Date: 29.01.2024
- Date of Sample Collection : 03/06/2025 to 04/06/2025
- Date of Testing : 05/06/2025 to 07/06/2025
- Test Procedure : As per IS - 5182
- Sampling Location : KTMPL SITE OFFICE

TEST RESULTS

SI No.	L1			NAAQ - CPCB STANDARD
	Avg. Ambient Temperature	Average Relative Humidity (%)	Sampling Location	
	34	46	KTMPL SITE OFFICE	
	Particulars		Value	
1.	Particulate Matter (PM ₁₀), µg/m ³		96.64	100 µg/m ³
2.	Particulate Matter (PM _{2.5}), µg/m ³		56.18	60 µg/m ³
3.	SO ₂ , µg/m ³		20.75	80 µg/m ³
4.	NO ₂ , µg/m ³		36.19	80 µg/m ³
5.	NH ₃ , µg/m ³		11.25	400 µg/m ³
6.	CO, mg/m ³		0.53	4 mg/m ³
7.	Pb, µg/m ³		BDL	1 µg/m ³
8.	As, ng/m ³		BDL	6ng/m ³
9.	Ni, ng/m ³		BDL	20ng/m ³
10.	Benzene, µg/m ³		BDL	5 µg/m ³
11.	Benzoapyrene, ng/m ³		BDL	1ng/m ³
12.	Ozone, µg/m ³		13.65	180 µg/m ³

Sr. Chemist
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

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Ref. No.: - ARDS/25-26/AAQ/3

Date: 12/06/2025

TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA - 828135, DIST. - DHANBAD
- Work Order P.O. NO. & Date: 6000036592 & Date: 29.01.2024
- Date of Sample Collection : 06/06/2025 - 07/06/2025
- Date of Testing : 08/06/2025 - 10/06/2025
- Test Procedure : As per IS - 5182
- Sampling Location : B.B.M COLLEGE BALIAPUR

TEST RESULTS

Sl No.	L7			NAAQ - CPCB STANDARD
	Avg. Ambient Temperature	Average Relative Humidity (%)	Sampling Location (B.B.M COLLEGE BALIAPUR)	
	34	52		
	Particulars	Value		
1.	Particulate Matter (PM ₁₀), µg/m ³	69.28	100 µg/m ³	
2.	Particulate Matter (PM _{2.5}), µg/m ³	38.10	60 µg/m ³	
3.	SO ₂ , µg/m ³	18.70	80 µg/m ³	
4.	NO ₂ , µg/m ³	32.65	80 µg/m ³	
5.	NH ₃ , µg/m ³	14.65	400 µg/m ³	
6.	CO, mg/m ³	0.57	4 mg/m ³	
7.	Pb, µg/m ³	BDL	1 µg/m ³	
8.	As, ng/m ³	BDL	6ng/m ³	
9.	Ni, ng/m ³	BDL	20ng/m ³	
10.	Benzene, µg/m ³	BDL	5 µg/m ³	
11.	Benzoapyrene, ng/m ³	BDL	1ng/m ³	
12.	Ozone, µg/m ³	14.40	180 µg/m ³	

[Signature]
Sr. Chemist
Aditi R&D Services



[Signature]
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Ref. No.: - ARDS/25-26/AAQ/4

Date: 12/06/2025

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- Work Order P.O. NO. & Date: 6000036592 & Date: 29.01.2024
- Date of Sample Collection : 05/06/2025 – 06/06/2025
- Date of Testing : 07/06/2025 – 09/06/2025
- Test Procedure : As per IS - 5182
- Sampling Location : MOTINAGAR NEAR POST OFFICE CAMPS

TEST RESULTS

Sl No.	L4			NAAQ - CPCB STANDARD
	Avg. Ambient Temperature	Average Relative Humidity (%)	Sampling Location	
	33	54	MOTINAGAR NEAR POST OFFICE CAMPS	
	Particulars		Value	
1.	Particulate Matter (PM ₁₀), µg/m ³		85.42	100 µg/m ³
2.	Particulate Matter (PM _{2.5}), µg/m ³		51.25	60 µg/m ³
3.	SO ₂ , µg/m ³		17.92	80 µg/m ³
4.	NO ₂ , µg/m ³		24.86	80 µg/m ³
5.	NH ₃ , µg/m ³		11.76	400 µg/m ³
6.	CO, mg/m ³		0.47	4 mg/m ³
7.	Pb, µg/m ³		BDL	1 µg/m ³
8.	As, ng/m ³		BDL	6ng/m ³
9.	Ni, ng/m ³		BDL	20ng/m ³
10.	Benzene, µg/m ³		BDL	5 µg/m ³
11.	Benzoapyrene, ng/m ³		BDL	1ng/m ³
12.	Ozone, µg/m ³		12.60	180 µg/m ³

Sr. Chemist
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

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Ref. No.: - ARDS/25-26/AAQ/5

Date: 12/06/2025

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- Work Order P.O. NO. & Date: 6000036592 & Date: 29.01.2024
- Date of Sample Collection : 03/06/2025 - 04/06/2025
- Date of Testing : 05/06/2025 - 07/06/2025
- Test Procedure : As per IS - 5182
- Sampling Location : G.M. OFFICE CHASNALLA

TEST RESULTS

SI No.	L5			NAAQ - CPCB STANDARD
	Avg. Ambient Temperature	Average Relative Humidity (%)	Sampling Location G.M. OFFICE CHASNALLA	
	35	47		
Particulars	Value			
1.	Particulate Matter (PM ₁₀), µg/m ³		69.94	100 µg/m ³
2.	Particulate Matter (PM _{2.5}), µg/m ³		38.47	60 µg/m ³
3.	SO ₂ , µg/m ³		19.33	80 µg/m ³
4.	NO ₂ , µg/m ³		27.58	80 µg/m ³
5.	NH ₃ , µg/m ³		12.35	400 µg/m ³
6.	CO, mg/m ³		0.49	4 mg/m ³
7.	Pb, µg/m ³		BDL	1 µg/m ³
8.	As, ng/m ³		BDL	6ng/m ³
9.	Ni, ng/m ³		BDL	20ng/m ³
10.	Benzene, µg/m ³		BDL	5 µg/m ³
11.	Benzoapyrene, ng/m ³		BDL	1ng/m ³
12.	Ozone, µg/m ³		12.75	180 µg/m ³

Sr. Chemist
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

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Ref. No.: - ARDS/25-26/AAQ/6

Date: 12/06/2025

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- Work Order P.O. NO. & Date: 6000036592 & Date: 29.01.2024
- Date of Sample Collection : 05/06/2025 - 06/06/2025
- Date of Testing : 07/06/2025 - 09/06/2025
- Test Procedure : As per IS - 5182
- Sampling Location : HIGH SCHOOL PARSHBANIA VILLAGE

TEST RESULTS

SI No.	L6			NAAQ - CPCB STANDARD
	Avg. Ambient Temperature	Average Relative Humidity (%)	Sampling Location	
	33	55	HIGH SCHOOL PARSABEDA VILLAGE	
Particulars	Value			
1. Particulate Matter (PM ₁₀), µg/m ³	65.21			100 µg/m ³
2. Particulate Matter (PM _{2.5}), µg/m ³	35.86			60 µg/m ³
3. SO ₂ , µg/m ³	20.54			80 µg/m ³
4. NO ₂ , µg/m ³	32.00			80 µg/m ³
5. NH ₃ , µg/m ³	12.6			400 µg/m ³
6. CO, mg/m ³	0.54			4 mg/m ³
7. Pb, µg/m ³	BDL			1 µg/m ³
8. As, ng/m ³	BDL			6 ng/m ³
9. Ni, ng/m ³	BDL			20 ng/m ³
10. Benzene, µg/m ³	BDL			5 µg/m ³
11. Benzoapyrene, ng/m ³	BDL			1 ng/m ³
12. Ozone, µg/m ³	12.50			180 µg/m ³

Sr. Chemist
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

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Ref. No.: - ARDS/25-26/AAQ/7

Date: 12/06/2025

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- Work Order P.O. NO. & Date: 6000036592 & Date: 29.01.2024
- Date of Sample Collection : 05/06/2025 - 06/06/2025
- Date of Testing : 07/06/2025 - 09/06/2025
- Test Procedure : As per IS - 5182
- Sampling Location : R&R COLONY ASANBANI

TEST RESULTS

SI No.	L8		NAAQ - CPCB STANDARD	
	Avg. Ambient Temperature	Average Relative Humidity (%)		Sampling Location R&R COLONY ASANBANI
	33	58		
Particulars	Value			
1.	Particulate Matter (PM ₁₀), µg/m ³	66.58	100 µg/m ³	
2.	Particulate Matter (PM _{2.5}), µg/m ³	36.62	60 µg/m ³	
3.	SO ₂ , µg/m ³	24.64	80 µg/m ³	
4.	NO ₂ , µg/m ³	28.00	80 µg/m ³	
5.	NH ₃ , µg/m ³	10.62	400 µg/m ³	
6.	CO, mg/m ³	0.50	4 mg/m ³	
7.	Pb, µg/m ³	BDL	1 µg/m ³	
8.	As, ng/m ³	BDL	6ng/m ³	
9.	Ni, ng/m ³	BDL	20ng/m ³	
10.	Benzene, µg/m ³	BDL	5 µg/m ³	
11.	Benzoapyrene, ng/m ³	BDL	1ng/m ³	
12.	Ozone, µg/m ³	12.60	180 µg/m ³	

Sr. Chemist
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

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Ref. No.: - ARDS/25-26/AAQ/8

Date: 12/06/2025

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- Work Order P.O. NO. & Date: 6000036592 & Date: 29.01.2024
- Date of Sample Collection : 03/06/2025 - 04/06/2025
- Date of Testing : 05/06/2025 - 07/06/2025
- Test Procedure : As per IS - 5182
- Sampling Location : MUNKI NIWAS RANGAMATI.

TEST RESULTS

SI No.	L11			NAAQ - CPCB STANDARD
	Avg. Ambient Temperature	Average Relative Humidity (%)	Sampling Location MUNKI NIWAS RANGAMATI	
	35	48		
Particulars	Value			
1.	Particulate Matter (PM ₁₀), µg/m ³		62.62	100 µg/m ³
2.	Particulate Matter (PM _{2.5}), µg/m ³		34.44	60 µg/m ³
3.	SO ₂ , µg/m ³		20.75	80 µg/m ³
4.	NO ₂ , µg/m ³		36.19	80 µg/m ³
5.	NH ₃ , µg/m ³		10.18	400 µg/m ³
6.	CO, mg/m ³		0.42	4 mg/m ³
7.	Pb, µg/m ³		BDL	1 µg/m ³
8.	As, ng/m ³		BDL	6ng/m ³
9.	Ni, ng/m ³		BDL	20ng/m ³
10.	Benzene, µg/m ³		BDL	5 µg/m ³
11.	Benzoapyrene, ng/m ³		BDL	1ng/m ³
12.	Ozone, µg/m ³		11.20	180 µg/m ³

Sr. Chemist
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

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Ref. No.: - ARDS/25-26/AAQ/9

Date: 12/06/2025

TEST REPORT OF AMBIENT AIR QUALITY

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- Work Order P.O. NO. & Date: 6000036592 & Date: 29.01.2024
- Date of Sample Collection : 04/06/2025 - 05/06/2025
- Date of Testing : 06/06/2025 - 07/06/2025
- Test Procedure : As per IS - 5182
- Sampling Location : FCIL OFFICE (INSIDE FCI)

TEST RESULTS

Sl No.	L2			NAAQ - CPCB STANDARD
	Avg. Ambient Temperature	Average Relative Humidity (%)	Sampling Location	
	33	55	FCIL OFFICE (INSIDE FCI)	
Particulars			Value	
1. Particulate Matter (PM ₁₀), µg/m ³			76.58	100 µg/m ³
2. Particulate Matter (PM _{2.5}), µg/m ³			42.12	60 µg/m ³
3. SO ₂ , µg/m ³			20.75	80 µg/m ³
4. NO ₂ , µg/m ³			36.19	80 µg/m ³
5. NH ₃ , µg/m ³			10.6	400 µg/m ³
6. CO, mg/m ³			0.48	4 mg/m ³
7. Pb, µg/m ³			BDL	1 µg/m ³
8. As, ng/m ³			BDL	6ng/m ³
9. Ni, ng/m ³			BDL	20ng/m ³
10. Benzene, µg/m ³			BDL	5 µg/m ³
11. Benzoapyrene, ng/m ³			BDL	1ng/m ³
12. Ozone, µg/m ³			12.60	180 µg/m ³

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Ref. No.: - ARDS/25-26/AAQ/10

Date: 12/06/2025

TEST REPORT OF AMBIENT AIR QUALITY

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- Work Order P.O. NO. & Date : 6000036592 & Date : 29.01.2024
- Date of Sample Collection : 06/06/2025 - 07/06/2025
- Date of Testing : 08/06/2025 - 10/06/2025
- Test Procedure : As per IS - 5182
- Sampling Location : ADITI R&D SERVICES, DOMGARH

TEST RESULTS

Sl No.	L10			NAAQ - CPCB STANDARD
	Avg. Ambient Temperature	Average Relative Humidity (%)	Sampling Location (ADITI R&D SERVICES, DOMGARH)	
	35	45		
Particulars	Value			
1.	Particulate Matter (PM ₁₀), µg/m ³		66.25	100 µg/m ³
2.	Particulate Matter (PM _{2.5}), µg/m ³		38.99	60 µg/m ³
3.	SO ₂ , µg/m ³		22.78	80 µg/m ³
4.	NO ₂ , µg/m ³		34.32	80 µg/m ³
5.	NH ₃ , µg/m ³		11.50	400 µg/m ³
6.	CO, mg/m ³		0.49	4 mg/m ³
7.	Pb, µg/m ³		BDL	1 µg/m ³
8.	As, ng/m ³		BDL	6ng/m ³
9.	Ni, ng/m ³		BDL	20ng/m ³
10.	Benzene, µg/m ³		BDL	5 µg/m ³
11.	Benzoapyrene, ng/m ³		BDL	1ng/m ³
12.	Ozone, µg/m ³		12.25	180 µg/m ³

Sr. Chemist
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

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Phone: 0326-2952377 (O),
Fax: 0326-2952377
Mobile: 09471358492, 09431512608

Ref. No.: - ARDS/25-26/AAQ/11

Date: 12/06/2025

TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA - 828135, DIST. - DHANBAD
- Work Order P.O. NO. & Date: 6000036592 & Date: 29.01.2024
- Date of Sample Collection : 04/06/2025 - 05/06/2025
- Date of Testing : 06/06/2025 - 08/06/2025
- Test Procedure : As per IS - 5182
- Sampling Location : FCIL GUEST HOUSE

TEST RESULTS

Sl No.	L9			NAAQ - CPCB STANDARD
	Avg. Ambient Temperature	Average Relative Humidity (%)	Sampling Location	
	33	54	FCIL GUEST HOUSE	
Particulars	Value			
1. Particulate Matter (PM ₁₀), µg/m ³	70.24			100 µg/m ³
2. Particulate Matter (PM _{2.5}), µg/m ³	38.63			60 µg/m ³
3. SO ₂ , µg/m ³	25.77			80 µg/m ³
4. NO ₂ , µg/m ³	30.64			80 µg/m ³
5. NH ₃ , µg/m ³	10.6			400 µg/m ³
6. CO, mg/m ³	0.48			4 mg/m ³
7. Pb, µg/m ³	BDL			1 µg/m ³
8. As, ng/m ³	BDL			6 ng/m ³
9. Ni, ng/m ³	BDL			20 ng/m ³
10. Benzene, µg/m ³	BDL			5 µg/m ³
11. Benzoapyrene, ng/m ³	BDL			1 ng/m ³
12. Ozone, µg/m ³	12.60			180 µg/m ³

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Ref. No.: - ARDS/25-26/AAQ/12

Date: 12/06/2025

TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA - 828135, DIST. - DHANBAD
- Work Order P.O. NO. & Date: 6000036592 & Date: 29.01.2024
- Date of Sample Collection : 06/06/2025 - 07/06/2025
- Date of Testing : 09/06/2025 - 10/06/2025
- Test Procedure : As per IS - 5182
- Sampling Location : LAGLAGRAM BHOJUDIH

TEST RESULTS

SI No.	L12			NAAQ - CPCB STANDARD
	Avg. Ambient Temperature	Average Relative Humidity (%)	Sampling Location	
	35	45	LAGLAGRAM BHOJUDIH	
	Particulars		Value	
1.	Particulate Matter (PM ₁₀), µg/m ³		65.48	100 µg/m ³
2.	Particulate Matter (PM _{2.5}), µg/m ³		32.10	60 µg/m ³
3.	SO ₂ , µg/m ³		20.20	80 µg/m ³
4.	NO ₂ , µg/m ³		32.60	80 µg/m ³
5.	NH ₃ , µg/m ³		15.20	400 µg/m ³
6.	CO, mg/m ³		0.59	4 mg/m ³
7.	Pb, µg/m ³		BDL	1 µg/m ³
8.	As, ng/m ³		BDL	6ng/m ³
9.	Ni, ng/m ³		BDL	20ng/m ³
10.	Benzene, µg/m ³		BDL	5 µg/m ³
11.	Benzoapyrene, ng/m ³		BDL	1ng/m ³
12.	Ozone, µg/m ³		12.20	180 µg/m ³

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Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

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TEST REPORT OF NOISE (AMBIENT) LEVEL MONITORING

Ref. No. & Date	NAME AND ADDRESS OF THE CLIENT			
ARDS/25-26/NOISE Date: 12/06/2025	TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA - 828135, DIST. - DHANBAD			
Date of Monitoring				
03/06/2025 to 06/06/2025	Avg. Ambient Temperature (°C)	Average Humidity (%)	Weather Condition	Status of the plant
P.O : 6000036592 & Date : 29.01.2024	33	54	CLEAR	RUNNING

MONITORING RESULTS

MONITORING RESULTS									
Sl. No	Place of Monitoring	Day Time (6 AM to 10 PM) Avg. dB(A)			Night Time (10 PM to 6 AM) Avg. dB(A)			Noise level (Ambient standard) for Industrial Area as per CPCB Noise Pollution (Regulation and Control) (Amendment) Rules , 2000 notified vide S.O. 1046(E) Dt. 22.11.2020 Limit in dB(A) Leq	
		MAX	MIN	AVG. dB(A) Leq	MAX	MIN	AVERAGE dB(A) Leq	Day Time	Night Time
LOCATION		MAX	MIN	AVG. dB(A) Leq	MAX	MIN	AVERAGE dB(A) Leq	Residential Area	Residential Area
BUFFER ZONE									
1.	NEW COLONY (L8) ASHANBANI.	65.9	55.5	63.27	41.5	38.4	40.22	55	45
2.	MUNKI NIWAS (L5) RANGAMATI.	51.4	47.8	49.96	40.6	37.6	39.35		
								Commercial Area	Commercial Area
1	GM OFFICE (L11)	63.0	58.2	61.23	39.8	36.0	38.3	65	55
2.	CHASNALLA								
CORE ZONE								Industrial Area	Industrial Area
1.	NEAR TASRA SIDE OFFICE KTMLP (L1)	59.1	53.3	57.1	59.3	54.8	57.61	75	70
2.	BIT Sindri (L3)	64.5	45.7	61.55	58.4	53.65	56.64		
3.	NEAR FCIL OFFICE. (L2)	56.1	46.3	53.52	59.2	59.2	57.43		

Sr. Chemist
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

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TEST REPORT OF SURFACE WATER FOR THE MONTH OF JUNE 2025

Ref. No. & Date	NAME AND ADDRESS OF THE CLIENT		
ARDS/25-26/SW-01 Dt. 12/06/2025	TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA - 828135, DIST. - DHANBAD		
P.O. NO. & Date	6000036592 & Date : 29.01.2024		
Season	Pre Monsoon		
Location of Sample Collection UPSTREAM OF DAMODAR RIVER		Analysis Started on	08/06/2025
Date & Time Sample Collection	07/06/2025	Analysis completed on	11/06/2025
Test Procedure	IS:3025		
TEST RESULT			
Sl. No.	Parameters	Value	(IS :2296) Surface Water Class "C" Tolerance Limit
1.	Colour Hazen units	2	300 (Max.)
2.	Dissolved Oxygen, mg/l	6.4	4 (Min.)
3.	B.O.D. (3 days at 27°C) mg/l	2.8	3 (Max.)
4.	Total Dissolved Solids mg/l, Max	340	1500 (Max.)
5.	pH Value	7.6	6.5 - 8.5
6.	Conductivity (µs/CM)	540	-
7.	Turbidity (NTU)	2	-
8.	Phenolic Compounds (as C ₆ H ₅ OH) mg/l,	B.D.L	0.005 (Max.)
9.	Oil and grease, mg/l	2.1	0.1 (Max.)
10.	C.O.D., mg/l	24	-
11.	Total Suspended Solids , mg/l	26.8	-

Remarks: All the parameters of samples tested are within the permissible limit of General standard.
BDL - Below Detection Limit

Sr. Chemist
Aditi R&D Services



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TEST REPORT OF SURFACE WATER FOR THE MONTH OF JUNE 2025

Ref. No. & Date	NAME AND ADDRESS OF THE CLIENT		
ARDS/25-26/SW-02 Dt. 12/06/2025	TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA – 828135, DIST. - DHANBAD		
P.O. NO. & Date	6000036592 & Date : 29.01.2024		
Season	Pre Monsoon		
Location of Sample Collection DOWNSTREAM OF DAMODAR RIVER		Analysis Started on	08/06/2025
Date & Time Sample Collection	07/06/2025	Analysis completed on	11/06/2025
Test Procedure	IS:3025		
TEST RESULT			
Sl. No.	Parameters	Value	(IS :2296) Surface Water Class "C" Tolerance Limit
1.	Colour Hazen units	2	300 (Max.)
2.	Dissolved Oxygen, mg/l	7.0	4 (Min.)
3.	B.O.D. (3 days at 27°C) mg/l	3.2	3 (Max.)
4.	Total Dissolved Solids mg/l, Max	340	1500 (Max.)
5.	pH Value	7.8	6.5 – 8.5
6.	Conductivity (µs/CM)	540	–
7.	Turbidity (NTU)	2	–
8.	Phenolic Compounds (as C ₆ H ₅ OH) mg/l,	BDL	0.005 (Max.)
9.	Oil and grease, mg/l	2.2	0.1 (Max.)
10.	C.O.D., mg/l	32	-
11.	Total Suspended Solids , mg/l	28.4	-

Remarks: All the parameters of samples tested are within the permissible limit of General standard.
BDL – Below Detection Limit

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Aditi R&D Services



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TEST REPORT OF DRINKING WATER FOR THE MONTH OF JUNE 2025

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Ref. No. & Date	NAME AND ADDRESS OF THE CLIENT		
ARDS/25-26/DW-01 Dt. 12/06/2025	TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA - 828135, DIST. - DHANBAD		
P.O. NO. & Date	6000036592 & Date : 29.01.2024		
Season	Pre Monsoon		
Location of Sample	ASANMANI COLONY (SARSAKUDI) (CORE ZONE)		
Sample Description	GROUND WATER		
		Analysis Started on : 08/06/2025	
Date of Sample Collection	07/06/2025	Analysis completed on	11/06/2025
Test Procedure	IS:3025		

TEST RESULT

Sl. No.	Parameters	Value	IS: 10500: 2012	
			Accepted Limit	Permissible Limit
1.	Colour Hazen units	2	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Taste	Agreeable	Agreeable	Agreeable
4.	Turbidity NTU	3	1	5
5.	Total Dissolved Solids mg/l,	560	500	2000
6.	pH Value	7.5	6.5 to 8.5	6.5 to 8.5
7.	Total Hardness (as CaCO ₃) mg/l,	272.0	200	600
8.	Calcium (as Ca) mg/l,	73.6	75	200
9.	Magnesium (as Mg)mg/l,	21.1	30	100
10.	Copper (as Cu) mg/l,	0.042	0.05	1.5
11.	Iron (as Fe) mg/l	1.5	1.0	NR
12.	Manganese (as Mn) mg/l,	N.T.	0.1	0.3
13.	Chlorides (as Cl) mg/l,	26.87	250	1000
14.	Sulphate (as SO ₄) mg/l	25	200	400
15.	Nitrate (as NO ₃) mg/l,	5.6	45	NR
16.	Fluoride (as F) mg/l	1.0	1.0	1.5
17.	Phenolic Compounds (as C ₆ H ₅ OH) mg/l,	N.T.	0.001	0.002
18.	Mercury (as Hg) mg/l,	N.T.	0.001	NR
19.	Cadmium (as Cd) mg/l,	N.T.	0.01	NR
20.	Selenium (as Se mg/l,	N.T.	0.01	NR
21.	Arsenic (as As) mg/l,	N.T.	0.01	0.05
22.	Cyanide (as Cn) mg/l,	N.T.	0.05	NR
23.	Lead (As Pb) mg/l	N.T.	0.05	NR
24.	Zinc (as Zn) mg/l	2.8	5.0	15
25.	Anionic detergents (as MBAS), mg/l,	N.T.	0.2	1.0
26.	Chromium (as Cr ⁺⁶) mg/l	0.13	0.05	NR
27.	Mineral Oil mg/l,	N.T.	0.01	NR
28.	Residual, free chlorine mg/l,	N.T.	0.2	1.0

Remarks: All the parameters of samples tested are within the permissible limit of Drinking Water Standard IS - 10500 : 2012, NT- NOT TRACEABLE

Sr. Chemist
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

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TEST REPORT OF DRINKING WATER FOR THE MONTH OF JUNE 2025

Ref. No. & Date		NAME AND ADDRESS OF THE CLIENT	
ARDS/25-26/DW-02 Dt. 12/06/2025		TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA – 828135, DIST. - DHANBAD	
P.O. NO. & Date		6000036592 & Date : 29.01.2024	
Season		Pre Monsoon	
Location of Sample		MUNKI NIWAS	
Sample Description		GROUND WATER	
Analysis Started on : 08/06/2025			
Date of Sample Collection		07/06/2025	Analysis completed on 11/06/2025
Test Procedure		IS:3025	

Sl. No.	Parameters	Value	IS: 10500: 2012	
			Accepted Limit	Permissible Limit
1.	Colour Hazen units	2	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Taste	Agreeable	Agreeable	Agreeable
4.	Turbidity NTU	2	1	5
5.	Total Dissolved Solids mg/l,	1020	500	2000
6.	pH Value	7.3	6.5 to 8.5	6.5 to 8.5
7.	Total Hardness (as CaCO ₃) mg/l,	480.0	200	600
8.	Calcium (as Ca) mg/l,	160	75	200
9.	Magnesium (as Mg)mg/l,	19.2	30	100
10.	Copper (as Cu) mg/l,	0.042	0.05	1.5
11.	Iron (as Fe) mg/l	0.88	1.0	NR
12.	Manganese (as Mn) mg/l,	N.T.	0.1	0.3
13.	Chlorides (as Cl) mg/l,	145.87	250	1000
14.	Sulphate (as SO ₄) mg/l	25	200	400
15.	Nitrate mg/l, (as NO ₃)	5.4	45	NR
16.	Fluoride (as F) mg/l	0.6	1.0	1.5
17.	Phenolic Compounds (as C ₆ H ₅ OH) mg/l,	N.T.	0.001	0.002
18.	Mercury (as Hg)mg/l,	N.T.	0.001	NR
19.	Cadmium (as Cd) mg/l,	N.T.	0.01	NR
20.	Selenium (as Se mg/l,	N.T.	0.01	NR
21.	Arsenic (as As) mg/l,	N.T.	0.01	0.05
22.	Cyanide (as Cn) mg/l,	N.T.	0.05	NR
23.	Lead (As Pb) mg/l	N.T.	0.05	NR
24.	Zinc (as Zn) mg/l	2.8	5.0	15
25.	Anionic detergents (as MBAS), mg/l,	N.T.	0.2	1.0
26.	Chromium (as Cr ⁶⁺) mg/l	0.15	0.05	NR
27.	Mineral Oil mg/l,	N.T.	0.01	NR
28.	Residual, free chlorine mg/l,	N.T.	0.2	1.0

Remarks: All the parameters of samples tested are within the permissible limit of Drinking Water Standard
IS - 10500 : 2012

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Technical Manager
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TEST REPORT OF DRINKING WATER FOR THE MONTH OF JUNE 2025

TEST REPORT OF DRINKING WATER FOR THE MONTH OF JUNE 2025

Ref. No. & Date	NAME AND ADDRESS OF THE CLIENT		
ARDS/25-26/DW-03 Dt. 12/06/2025	TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA – 828135, DIST. - DHANBAD		
P.O. NO. & Date	6000036592 & Date : 29.01.2024		
Season	Pre Monsoon		
Location of Sample	HIGH SCHOOL PARASBANIA		
Sample Description	GROUND WATER		
		Analysis Started on : 08/06/2025	
Date of Sample Collection	07/06/2025	Analysis completed on	11/06/2025
Test Procedure	IS:3025		

Sl. No.	Parameters	Value	IS: 10500: 2012	
			Accepted Limit	Permissible Limit
1.	Colour Hazen units	2	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Taste	Agreeable	Agreeable	Agreeable
4.	Turbidity NTU	3	1	5
5.	Total Dissolved Solids mg/l,	560	500	2000
6.	pH Value	7.4	6.5 to 8.5	6.5 to 8.5
7.	Total Hardness (as CaCO ₃) mg/l,	328	200	600
8.	Calcium (as Ca) mg/l,	76.8	75	200
9.	Magnesium (as Mg)mg/l,	32.6	30	100
10.	Copper (as Cu) mg/l,	0.041	0.05	1.5
11.	Iron (as Fe) mg/l	8.8	1.0	NR
12.	Manganese (as Mn) mg/l,	N.T.	0.1	0.3
13.	Chlorides (as Cl) mg/l,	86.37	250	1000
14.	Sulphate (as SO ₄) mg/l	60	200	400
15.	Nitrate mg/l, (as NO ₃)	5.4	45	NR
16.	Fluoride (as F) mg/l	0.4	1.0	1.5
17.	Phenolic Compounds (as C ₆ H ₅ OH) mg/l,	N.T.	0.001	0.002
18.	Mercury (as Hg)mg/l,	N.T.	0.001	NR
19.	Cadmium (as Cd) mg/l,	N.T.	0.01	NR
20.	Selenium (as Se mg/l,	N.T.	0.01	NR
21.	Arsenic (as As) mg/l,	N.T.	0.01	0.05
22.	Cyanide (as Cn) mg/l,	N.T.	0.05	NR
23.	Lead (As Pb) mg/l	N.T.	0.05	NR
24.	Zinc (as Zn) mg/l	2.6	5.0	15
25.	Anionic detergents (as MBAS), mg/l,	N.T.	0.2	1.0
26.	Chromium (as Cr ⁺) mg/l	0.15	0.05	NR
27.	Mineral Oil mg/l,	N.T.	0.01	NR
28.	Residual, free chlorine mg/l,	N.T.	0.2	1.0

Remarks: All the parameters of samples tested are within the permissible limit of Drinking Water Standard
IS - 10500: 2012

Sr. Chemist

Aditi R&D Services



Technical Manager

Aditi R&D Services, Sindri

Statements :

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ADITI R&D SERVICES

Testing Laboratory

NABL ACCREDITED

(A Constituent Board of Quality Council of India)

ISO/IEC 17025:2017, ISO 9001:2015, ISO (OHSAS) 45001:2018 Certified

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Phone: 0326-2952377 (O),
Fax: 0326-2952377
Mobile: 09471358492, 09431512608

TEST REPORT OF DRINKING WATER FOR THE MONTH OF JUNE 2025

Ref. No. & Date	NAME AND ADDRESS OF THE CLIENT		
ARDS/25-26/DW-04 Dt. 12/06/2025	TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA - 828135, DIST. - DHANBAD		
P.O. NO. & Date	6000036592 & Date : 29.01.2024		
Season	Pre Monsoon		
Location of Sample	SARKARI HOSPITAL CHASNALLA		
Sample Description	GROUND WATER		
Date of Sample Collection	07/06/2025	Analysis Started on :	08/06/2025
Test Procedure		Analysis completed on	11/06/2025
IS:3025			

TEST RESULT

Sl. No.	Parameters	Value	IS: 10500: 2012	
			Accepted Limit	Permissible Limit
1.	Colour Hazen units	2	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Taste	Agreeable	Agreeable	Agreeable
4.	Turbidity NTU	2	1	5
5.	Total Dissolved Solids mg/l,	540	500	2000
6.	pH Value	7.3	6.5 to 8.5	6.5 to 8.5
7.	Total Hardness (as CaCO ₃) mg/l,	240	200	600
8.	Calcium (as Ca) mg/l,	73.6	75	200
9.	Magnesium (as Mg) mg/l,	13.4	30	100
10.	Copper (as Cu) mg/l,	0.046	0.05	1.5
11.	Iron (as Fe) mg/l	0.55	1.0	NR
12.	Manganese (as Mn) mg/l,	N.T.	0.1	0.3
13.	Chlorides (as Cl) mg/l,	69.09	250	1000
14.	Sulphate (as SO ₄) mg/l	50	200	400
15.	Nitrate mg/l, (as NO ₃)	5.5	45	NR
16.	Fluoride (as F) mg/l	0.5	1.0	1.5
17.	Phenolic Compounds (as C ₆ H ₅ OH) mg/l,	N.T.	0.001	0.002
18.	Mercury (as Hg) mg/l,	N.T.	0.001	NR
19.	Cadmium (as Cd) mg/l,	N.T.	0.01	NR
20.	Selenium (as Se) mg/l,	N.T.	0.01	NR
21.	Arsenic (as As) mg/l,	N.T.	0.01	0.05
22.	Cyanide (as Cn) mg/l,	N.T.	0.05	NR
23.	Lead (As Pb) mg/l	N.T.	0.05	NR
24.	Zinc (as Zn) mg/l	2.7	5.0	15
25.	Anionic detergents (as MBAS), mg/l,	N.T.	0.2	1.0
26.	Chromium (as Cr ⁶⁺) mg/l	0.11	0.05	NR
27.	Mineral Oil mg/l,	N.T.	0.01	NR
28.	Residual, free chlorine mg/l,	N.T.	0.2	1.0

Remarks: All the parameters of samples tested are within the permissible limit of Drinking Water Standard IS - 10500 : 2012, NT- NOT TRACEABLE

Sr. Chemist

Aditi R&D Services



Technical Manager

Aditi R&D Services, Sindri

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Fax: 0326-2952377
Mobile: 09471358492, 09431512608

TEST REPORT OF DRINKING WATER FOR THE MONTH OF FEBRUARY 2025

TEST REPORT OF DRINKING WATER FOR THE MONTH OF FEBRUARY 2025			
Ref. No. & Date		NAME AND ADDRESS OF THE CLIENT	
ARDS/25-26/DW-05 Dt. 12/06/2025		TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA – 828135, DIST. - DHANBAD	
P.O. NO. & Date		6000036592 & Date : 29.01.2024	
Season		Pre Monsoon	
Location of Sample		LAGLA GRAM PANCHAYAT	
Sample Description		GROUND WATER	
		Analysis Started on : 08/06/2025	
Date of Sample Collection		07/06/2025	Analysis completed on 11/06/2025
Test Procedure		IS:3025	

TEST RESULT

Sl. No.	Parameters	Value	IS: 10500: 2012	
			Accepted Limit	Permissible Limit
1.	Colour Hazen units	1	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Taste	Agreeable	Agreeable	Agreeable
4.	Turbidity NTU	3	1	5
5.	Total Dissolved Solids mg/l,	370	500	2000
6.	pH Value	7.8	6.5 to 8.5	6.5 to 8.5
7.	Total Hardness (as CaCO ₃) mg/l,	165.4	200	600
8.	Calcium (as Ca) mg/l,	53.4	75	200
9.	Magnesium (as Mg) mg/l,	7.7	30	100
10.	Copper (as Cu) mg/l,	0.043	0.05	1.5
11.	Iron (as Fe) mg/l	0.58	1.0	NR
12.	Manganese (as Mn) mg/l,	N.T.	0.1	0.3
13.	Chlorides (as Cl) mg/l,	28.59	250	1000
14.	Sulphate (as SO ₄) mg/l	25	200	400
15.	Nitrate mg/l, (as NO ₃)	5.8	45	NR
16.	Fluoride (as F) mg/l	0.7	1.0	1.5
17.	Phenolic Compounds (as C ₆ H ₅ OH) mg/l,	N.T.	0.001	0.002
18.	Mercury (as Hg) mg/l,	N.T.	0.001	NR
19.	Cadmium (as Cd) mg/l,	N.T.	0.01	NR
20.	Selenium (as Se) mg/l,	N.T.	0.01	NR
21.	Arsenic (as As) mg/l,	N.T.	0.01	0.05
22.	Cyanide (as Cn) mg/l,	N.T.	0.05	NR
23.	Lead (As Pb) mg/l	N.T.	0.05	NR
24.	Zinc (as Zn) mg/l	2.6	5.0	15
25.	Anionic detergents (as MBAS), mg/l,	N.T.	0.2	1.0
26.	Chromium (as Cr ⁶⁺) mg/l	0.14	0.05	NR
27.	Mineral Oil mg/l,	N.T.	0.01	NR
28.	Residual, free chlorine mg/l,	N.T.	0.2	1.0

Remarks: All the parameters of samples tested are within the permissible limit of Drinking Water Standard
IS - 10500 : 2012 NT- NOT TRACEABLE

Sr. Chemist

Aditi R&D Services



Technical Manager

Aditi R&D Services, Sindri

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Phone: 0326-2952377 (O),
Fax: 0326-2952377
Mobile: 09471358492, 09431512608

TEST REPORT OF SURFACE WATER FOR THE MONTH OF JUNE 2025

Ref. No. & Date	NAME AND ADDRESS OF THE CLIENT		
ARDS/25-26/SW-03 Dt. 12/06/2025	TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA - 828135, DIST. - DHANBAD		
P.O. NO. & Date	6000036592 & Date : 29.01.2024		
Season	Pre Monsoon		
Location of Sample Collection TASRA PROJECT SURFACE WATER / PIT WATER		Analysis Started on	08/06/2025
Date & Time Sample Collection	07/06/2025	Analysis completed on	11/06/2025
Test Procedure	IS:3025		
TEST RESULT			
Sl. No.	Parameters	Value	(IS :2296) Surface Water Class "C" Tolerance Limit
1.	Colour Hazen units	2	300 (Max.)
2.	Dissolved Oxygen, mg/l	6.8	4 (Min.)
3.	B.O.D. (3 days at 27°C) mg/l	3.0	3 (Max.)
4.	Total Dissolved Solids mg/l, Max	615.5	1500 (Max.)
5.	pH Value	7.5	6.5 - 8.5
6.	Conductivity (µs/CM)	980	-
7.	Turbidity (NTU)	3	-
8.	Phenolic Compounds (as C ₆ H ₅ OH) mg/l,	B.D.L	0.005 (Max.)
9.	Oil and grease, mg/l	0.8	0.1 (Max.)
10.	C.O.D., mg/l	48	-
11.	Total Suspended Solids , mg/l	30.6	-

Remarks: All the parameters of samples tested are within the permissible limit of General standard.
BDL - Below Detection Limit

Sr. Chemist
Aditi R&D Services



Technical Manager
Aditi R&D Services, Sindri

Statements :

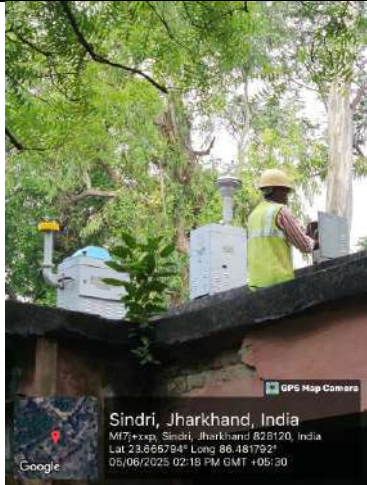
1. The test report refers only to the particular item(s) submitted for testing.
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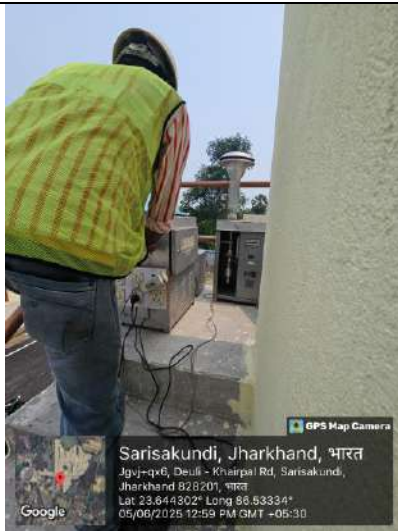
Sl. No.	Date	Location	Photographs	
			Start	End
L1	06/06/2025	ADITI R&D SERVICES, DOMGARH	 Sindri, Jharkhand, भारत B18, Industrial Area, Sindri, Jharkhand 828107, भारत Lat 23.645338° Long 86.502533° 06/06/2025 12:52 PM GMT +05:30	 Sindri, Jharkhand, भारत B18, Industrial Area, Sindri, Jharkhand 828107, भारत Lat 23.645338° Long 86.502533° 07/06/2025 12:56 PM GMT +05:30
L2	07/06/2025	B.B.M COLLEGE BALIAPUR	 बाधमारा, झारखंड, भारत Pg2g+g7d, बाधमारा, झारखंड 828201, भारत Lat 23.701182° Long 86.525586° 06/06/2025 10:56 AM GMT +05:30	 बाधमारा, झारखंड, भारत Pg2g+g7d, बाधमारा, झारखंड 828201, भारत Lat 23.701182° Long 86.525586° 07/06/2025 11:56 AM GMT +05:30

Sl. No.	Date	Location	Photographs	
			Start	End
L3	05/06/2025	BIT HOSTEL	 GPS Map Camera रोहाखंड, झारखंड, भारत M5H+qgq, D-लेन नॉ. 3A, रोहा, पोस्ट 828120, पपन Lat 23.468644° Long 86.479718° 05/06/2025 02:04 PM GMT +05:30	 GPS Map Camera रोहाखंड, झारखंड, भारत M5H+qgq, D-लेन नॉ. 3A, रोहा, पोस्ट 828120, पपन Lat 23.468644° Long 86.479718° 05/06/2025 02:51 PM GMT +05:30
L4	03/06/2025	G.M. OFFICE CHASNALLA	 GPS Map Camera चासनाल्ला, झारखंड, भारत Mc7w+wcx, चासनाल्ला, झारखंड 828135, भारत Lat 23.664989° Long 86.448029° 03/06/2025 12:30 PM GMT +05:30	 GPS Map Camera चासनाल्ला, झारखंड, भारत Mc7w+wcx, Near Inside Of Sail-isp Gate, चासनाल्ला, झारखंड 828135, भारत Lat 23.664945° Long 86.445992° 04/06/2025 10:46 AM GMT +05:30

Sl. No.	Date	Location	Photographs	
			Start	End
L5	05/06/2025	HIGH SCHOOL PARASHBANIA VILLAGE		
L6	03/06/2025	KT MPL SITE OFFICE TASRA		

L7	06/06/2025	LAGLAGRAM BHOJUDIH		
L8	05/06/2025	MOTINAGAR POST OFFICE CAMPUS		

L9	03/06/2025	MUNKI NIWAS RANGAMATI	 सिंदरी, झारखंड, भारत Mpq+794, सिंदरी, झारखंड 828130, भारत Lat 23.685813° Long 86.48912° 03/06/2025 03:20 PM GMT +05:30	 सिंदरी, झारखंड, भारत Mpq+794, सिंदरी, झारखंड 828130, भारत Lat 23.685745° Long 86.489066° 04/06/2025 03:35 PM GMT +05:30
L10	04/06/2025	OFFICER CLUB SINDRI ROHRABAND	 सिंदरी, झारखंड, भारत MT7+xx2, सिंदरी, झारखंड 828120, भारत Lat 23.685735° Long 86.481866° 04/06/2025 04:51 PM GMT +05:30	 Sindri, Jharkhand, India MT7+xx2, Sindri, Jharkhand 828120, India Lat 23.685734° Long 86.481792° 05/06/2025 02:18 PM GMT +05:30

L11	05/06/2025	R&R COLONY ASANBANI		
L12	04/06/2025	FCIL OFFICE		

ANNEXURE - VII

IME/PME Data

IME/PME DATA FROM 01.10.2024 TO 31.03.2025			
S.NO	B Code	NAME	DESIGNATION
1	20342	MUNNA KUMAR SINGH	VOLVO OPERATOR
2	20343	MOHAN RAY	VOLVO OPERATOR
3	20347	MANIL KUMAR	VOLVO OPERATOR
4	20357	NIRMAL KUMAR MAHTO	EXCAVATOR OPERATOR
5	20358	PUSHPENDRA KUMAR SHAH	WELDER
6	20359	MD. RIZWAN	TYRE FITTER
7	20360	BUCHAN PRASAD	EXCAVATOR OPERATOR
8	20362	SURESH PANDIT	VOLVO OPERATOR
9	20363	BALRAM PRASAD VERMA	VOLVO OPERATOR
10	20365	RANJEET KUMAR	VOLVO OPERATOR
11	20366	SAPAN PRAMANIK	DOZER OPERATOR
12	20367	RAHUL PASWAN	VOLVO OPERATOR
13	20369	MANOJ KUMAR CHOUHAN	VOLVO OPERATOR
14	20373	SHIVAM KUMAR PRIYANK	VOLVO OPERATOR
15	20374	KANHAI RAWANI	EXCAVATOR OPERATOR
16	20378	RAVINDRA KUMAR	VOLVO OPERATOR
17	20379	UDAY KUMAR	VOLVO OPERATOR
18	20317	KANDURI DAMODAR REDDY	GAREGE FOREMAN
19	20326	NITESH PANDIT	Safety Officer
20	20328	Niraj Kumar Sinha	Asst Manager-Mining
21	20330	Shubham Anad	Sr. Safety Executive
22	20331	Anand Mohan	JR.EXECUTIVE-SAFETY
23	20337	KUMAR RAVI KANT	DY. GENERAL MANAGER
24	20339	ARUN KUMAR	ASST MANAGER-D&B
25	20341	DHARMENDRA KUMAR	SR.MANAGER
26	20344	MUKESH YADAV	OVERMAN
27	20345	KATUKURI CHANDRA BHUSHAN	ASST MANAGER
28	20353	PUSHPENDRA KUMAR SHAH	OVERMAN
29	20361	KANDRU GOPI CHAND	ENGINEER
30	20364	SUKRAM RAJAK	TR. MINING SIRDAR

Chay
05/03/2025

Details of Mock drills organized at Tasra OCP

SI No	Type of Drill	Date	No. of attendees	Photograph
1	Fire	11/01/2024	38	   केटीएमपीएल द्वारा टासरा माइनिंग प्रोजेक्ट में फायर एंड सेफ्टी मॉक ड्रिल का आयोजन सिमेंटी। गुल्शर को रेलन कोपरी के एमपीओ कल्याणेश्वरी टासरा माइनिंग प्राइवेट लिमिटेड अंतर्गत सेफ्टी (सुरक्षा) विभाग के प्रमुख श्री चन्दन बाबू द्वारा माइंस को सुरक्षा में तैयार विशेष सहायक पुलिस के जवानों, कोल प्लांटिंग अधिकारियों, एसआरएस के सुरक्षा गार्ड एवं फोरेल उत्पादन प्रबंधकों, कर्मचारियों को सुरक्षा प्रबंधक द्वारा फायर एंड सेफ्टी तथा सीपीआर के प्रशिक्षण का आयोजन माइंस क्षेत्र रोडवेज में किया गया। उक्त प्रशिक्षण में विभिन्न प्रकार के सुरक्षा उपकरणों जैसे अग्निसम का उपयोग, माइंस के अंदर सुरक्षा, बाहरी के आवरण तथा गार्डन से सम्बंधित हर एक सुरक्षा फलतु से अवगत किया गया। उक्त प्रशिक्षण में अग्निसम का उपयोग करने का प्रयास किया गया और बाहरी से बताया गया कि जिस दिशा में हवा का प्रवाह होगा उसके विपरीत दिशा में रहकर अगर बुझाना सुनिश्चित रहना है। प्रशिक्षण कार्यक्रम में खेल के पंकज मंडल, राजेंद्र प्रसाद एवं अन्य अधिकारियों तथा केटीएमपीएल के परियोजना निदेशक टी. रमेश, माइंस ऑपरेशन प्रमुख सुरजीत शर्मा, एवं अन्य अधिकारी कर्मचारी उपस्थित हुए।
2	Heat Stroke	15/05/2024	11	 

				 	
3	Electric Shock	25/09/2024	10	   	
4	Fly rock generated during blasting	05/12/2024	13	 	

					
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ANNEXURE - VIII

EMP Cost (Capital + Recurring) incurred till date

Capital Cost Incurred till date		
Sl. No.	Specification	Investment (in lakhs)
1	HEMM equipment (Hoe, Dumper, Soil Compactor, Loader, Dozer etc.)	2000
2	Pollution abatement measures e.g. Water sprinklers, dust suppression, etc.	22
3	Water Measuring instruments e.g. Piezometers, Flowmeters, pumps etc.	2
4	Health Safety Instruments e.g. PPE, Medical equipment, etc.	10
5	Pollution Monitoring equipment e.g. CAAQMS, ETP	80
6	Green Belt Development	5
7	Miscellaneous	8
8	Total	2127

Recurring cost against EMP (in lakhs)					
Sl. No.	Activity	2024-25	2023-24	2022-23	2021-22
1	Environmental Monitoring (Air, Water, Noise, Soil)	3.75	3	2.5	2.5
2	Operation & Maintenance of Pollution Control Systems (CAAQMS, ETP, Sedimentation ponds, calibrations cost, etc.)	10	8	2	1.5
3	Water Sprinkling (Dust Suppression)	4.5	3	2.5	2
4	Greenbelt (Afforestation & Plantation)	10	4	2.5	2
5	Environmental Awareness and Training Programs	2.5	2	1.5	1
6	Occupational Health & Safety (PPE, Medical examination, training, etc.)	10	3	3.5	2.5
7	Total	40.75	23	14.5	11.5

ANNEXURE - IX

List of activities under CSR with expenditure in period from Oct. 2024- to March 2025

Programme	Activity	No. of Beneficiaries (approx.)	Expenditure (lakhs)	Remarks
A. Livelihood	Exotic Vegetable Cultivation	100	8	Broccoli, yellow & purple cauliflower
	Mushroom Cultivation	32		Oyster & summer mushroom
	Poultry Livelihood	30		Distribution of improved variety of chicks
	Stitching & Handicrafts (Udaan Scheme)	85 (40 + 45)		Product buyback through open market/NGO
	Bamboo Craft Training	9		
B. Health, Sanitation & Drinking Water	Static Health Clinic	8,236	32	Free health services 24x7 with doctor & ambulance for employees & community
	Health Camps	330		Done in partnership with SAIL
	Drinking Water Tanks (Tanker)			Supply of 15,000 liters/day to the communities for safe drinking water
	Drinking Water (Submersible) 5 nos			4,000 liters/day capacity
	Handpumps repaired	15		
	Wells repaired	2		
	Submersible pumps repaired	1		
	Toilet Blocks Constructed	12 blocks / 24 toilets		24 families benefited
	Bathing Spaces for Women	Not specified		Safe and dignified hygiene support
C. Community Infrastructure	Pond Excavation(Sarisakundi)	8400 cum	14	For rain water harvesting purpose and ground water recharge in the area
	Pond Restoration (Rohrabandh)	7091 cum		
	Street Lights Installed	124 lights		Across 6 villages
	Community Hall Construction	1		For coaching center
	Anganwadi Renovation	1		At Rohrabandh
	Drain Reclamation	2		At Asanbani and Sarisakundi
	School Playground	1		At Sarisakundi Primary School

	Levelling			
D.	Blanket Distribution	1000	6.96	At Collieries SAIL
	Artificial Limbs	173	20	At Dhanabd
	Dialysis & Physio Therapy Centre	60	10	At Jeevan Jyoti School, Dhanbad
	Eye Camp (By Shankar Netralay) @ Tasra	300	2.24	At Tasra Project Area
	Health Camp @ Motinagar	10000	8.63	At Tasra Project Area
	Jal Minar (Solar Based Drinking Water Supply)	4	20	At Tasra Project Area
	Sports	150	0.20	At Tasra Project Area
	Plantation	200	1.25	At BIT Sindri
	LED	250	10	At Tasra Project Area



Mushroom Training



Free Health Camp



Stitching Training



Water Tanker Supply



Handpump, Toilet, Street light installed at several locations



MOBILE HEALTH CAMP 2024-2025(CSR COLLIERY DIVISION SAIL)



सेल एवं दुर्गापुर सुन्दरम क्रिएटिव वेलफेयर सोसाइटी ने किया निःशुल्क स्वास्थ्य जांच शिविर का आयोजन



प्रजात नम्र लवादाता

झरिया : सेल एवं दुर्गापुर सुन्दरम क्रिएटिव वेलफेयर सोसाइटी के सौजन्य से जामादोबा आलम नगर में निःशुल्क स्वास्थ्य शिविर का आयोजन किया गया जिसमें कुल 100 मरीजों में 69 महिलाएं और 31 पुरुषों की जांच की गई। शिविर में ब्लड प्रेशर, शुगर, आंवसीजन लेवल, वजन मापन सहित आवश्यक दवाइयों का वितरण भी किया गया। सेल के द्वारा प्रत्येक माह निःशुल्क जांच शिविर लगाया जाता है। जिससे गरीब एवं आर्थिक रूप से

कमजोर लोगों को लाभ मिल रहा है। डॉक्टर ने बबती गभी एवं लूह से बचने के लिए मरीजों को बहुत सारी जानकारी दी। आई हुई महिलाओं को वैपकिन भी प्रेषित में दिया गया। साथ ही मरीजों को दवाएं भी दी गईं और समय समय पर स्वास्थ्य जांच कराने एवं स्वास्थ्य के प्रति हमेशा जागरूक रहने की भी सलाह दी गई। लोगों ने इस स्वास्थ्य शिविर की काफी सराहना की। मौके पर डॉ. अनन्या डे, बोइसाखी हसदा, शबती दुह, अनीशा पट्टी, अमर सिन्हा आदि मौजूद रहे।

TAILORING & JUTE HANDICRAFTS SKILL TRAINING 2024-2025(CSR COLLIERY DIVISION, SAIL)



DISTRIBUTION OF BLANKETS 2024-2025 (CSR SAIL)



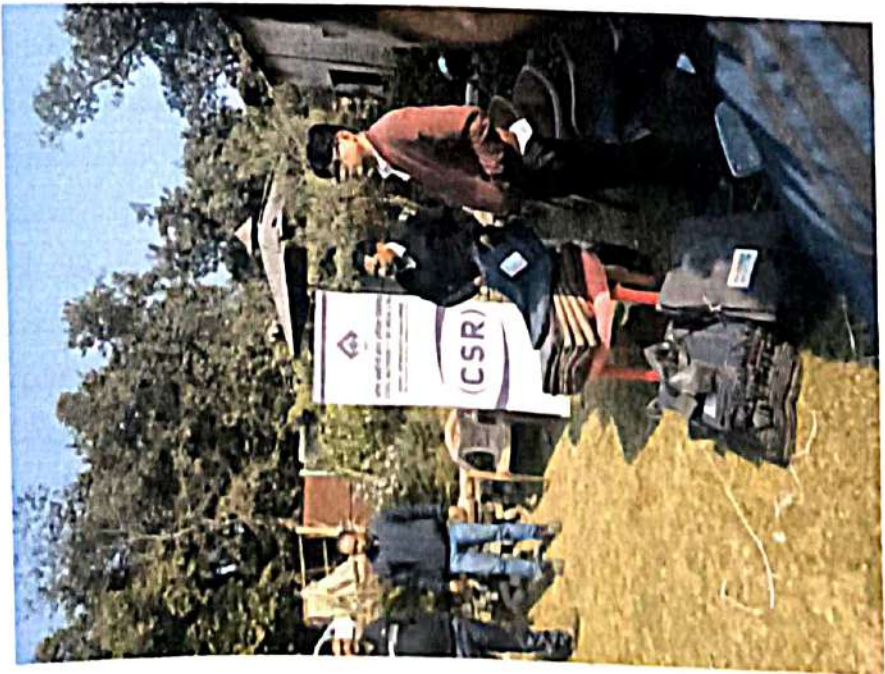
SPORTS MEET SPONSORED 2024-2025 (CSR COLLIERY DIVISION, SAIL)



DISTRIBUTION OF AIDS & APPLIANCES TO DIVYANGJANS 2024-2025 (CSR COLLIERY DIVISION, SAIL)

















ANNEXURE - X



स्टील अथॉरिटी ऑफ इंडिया लिमिटेड
STEEL AUTHORITY OF INDIA LIMITED
कोलियरीज डिवीज़न /COLLIERY DIVISION
तासरा कोलियरी/TASRA COLLIERY
पोस्ट ऑफिस चासनाला – 828 135, जिला धनबाद – (झारखण्ड)
P.O. CHASNALLA – 828135, DISTT.: DHANBAD (Jharkhand)

Ref. No: -DGM./TASRA/Env.Stat 23-24/ 56.

Date:- 16.09.2024

To,
The Member Secretary
Jharkhand State Pollution Control Board
T.A. Division Building, HEC Campus, Dhurwa
Ranchi, Jharkhand-834004

Sub: Submission of Environment Statement of Tasra Coal Mining Project of M/s Steel Authority of India Limited for the FY 2023-24.

Ref.: JSPCB/HO/RNC/CTO-15663289/2023/1161 dated 28.06.2023

Dear Sir,

Please find the enclosed herewith “**Environment Statement**” of Tasra Coal Mining Project for the financial year 2023-24 in duly filled in the prescribed format Form-V under rule 24 of the Environment (Protection) Rule 1986.

Thanking you,

Your's faithfully

[Signature]
16/09/2024
Dy. GM (Mining), Tasra
Tasra Coal Mining Project
BSL-Collieries Division, SAIL

Encl: As stated above.

Copy to:

1. Regional Officer, MoEF & CC, Ranchi.
2. Regional office, Dhanbad, Jharkhand.

[FORM –V]

(See rule 14)

Environment Statement for the financial year ending the 31st March 2024 for Tasra Coal Mining Project of M/s-Steel Authority of India Limited.

PART-A

- i) Name and address of the owner/occupier of the industry operation or process.
Sri Sibaram Banerjee, GM I/C (Tasra & Chasnalla), Central Office, Collieries Division, BSL-Collieries, SAIL, Chasnalla, Dhanbad, Jharkhand- 828135
- ii) Industry category: - **Mining, Code - 010232.**
Primary (STC Code): **Primary (Opencast Coal Mine)**
Secondary (STC Code): **Integrated Iron & Steel Industry**
Production capacity – Units: **Production Capacity: 4MTPA**
OPENCAST COAL MINE PROJECT
(In the FY 2023-24, only 3,33,316 tonne of incidental coal has been produced as the mine is still in developmental stage due to pending Land Acquisition)

Year of establishment: **2009.**

- iii) Date of the last environmental statement submitted: **28.04.2023**

PART-B

Water and River Material Consumption

- (1) Water consumption m³/d:
- Process : **No process is involved in excavation of coal.**
- Cooling : **Nil**
- Domestic : **Nil (Township is yet to be developed)**
- Name of Products:

i) Process water consumption per unit of product output

	During the previous financial Year	During the current financial Year
COAL	Nil	Nil

ii) Raw Material Consumption

*Name of raw materials	Name of products	Consumption of raw Material per unit of output
		During the Previous financial year (2022-23)
		During the current financial year (2023-24)
1. H S DIESEL	COAL &	0.42 litre/tonne
2. EXPLOSIVES	OVER BURDEN	0.15 kg/tonne
		0.56 litre/tonne
		0.16 kg/tonne

*Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used

PART-C

Pollution discharged to environment/unit of output (Parameter as specified in the consent issued)

1) Pollutants	Quantity of pollutants discharged (mass /day)	Concentration of pollutants in discharges(mass/volume)	Percentage of variation from prescribed standards with reasons
a) Air b) Water	1. Quarterly Sampling and analysis of PM₁₀, PM_{2.5}, SO₂ and NO_x etc. have been carried out from stations established in the core zone as well as buffer zone of Tasra OCP. 2. Monitoring of quality of ground water, surface water (upstream & downstream of mine site) and mine water from core zone and buffer zone of Tasra mine have been regularly monitored. 3. All parameters are within limit. 4. All parameters are analysis by an NABL Accredited/ISO9001:2008 and OHSAS 18001:2007 certified lab M/s Adity R&D Service (Recognized by Jharkhand State Pollution Control Board), Sindri, Dhanbad, Jharkhand. Ambient Air Quality and Water Analysis reports enclosed as ANNEXURE- I.		

PART- D

Hazardous Wastes

(As specified under Hazardous Waste Management and Handling Rules, 1989)

Hazardous Wastes	Total Quantity (Kg)	
	During the previous Financial Year	During the current Financial Year
a) From Process b) From Pollution control facilities	NO HAZARDOUS WASTES ARE GENERATED.	

PART- E

Solid Wastes

	Total Quantity	
	During the previous FY 2022-23	During the current FY 2023-24
	10,31,566.358	7,49,505.632

a) From process	-----NOT APPLICABLE-----
b) From pollution control facility	-----NOT APPLICABLE-----
c) (1) quantity recycled or re-utilised within the unit (2) Sold (3) Disposed	Total solid waste generated is being dumped in old abandoned pit in the project area, previously worked by BCCL.

*Solid Wastes comprises broken overlying rocks of coal seams i.e. Over Burden.

PART-F

Please specify the characterisation (in terms of composition of quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes:

- No hazardous wastes are generated.

- However, solid waste in the form of broken overlying rocks of coal (i.e. Over burden) are generated from open cast mines. Solid wastes are disposed off in the de-coaled area (about 90%) and remaining 10% is disposed off in the over burden dump yards.

PART-G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production:

1. Water sprinkling is being done in the quarry area, haul roads, dump yards, loading/unloading areas, weigh bridges, office and surrounding locality to suppress the dust and its generation.
2. HEMMs are under regular maintenance for control of noise.
3. Proper and controlled blasting techniques are undertaken to minimise blast induced ground vibration & noise
4. Piezometer has been installed for ground water level monitoring at Tasra OCP.
5. Drain cleaning all around of mine periphery area.
6. Rain water harvesting system has been installed at various points Chasnalla coal complex (23 units has been installed).
7. ROM Coal is transported from Tasra mine pit to CPP, Chasnalla by tarpaulin covered trucks. Entire coal is being transported by rail mode from railway siding of CCP to captive steel plant of SAIL.
8. PM10 Analyzer has been installed at Tasra Siding.
9. OB generated during small scale mining was used to fill up the old abandoned mine previously worked by M/S BCCL lying well within the earmarked OB dump area.
10. Coal production and waste excavation report enclosed as annexure-II.

PART-H

Additional measures / investment proposal for environmental protection including abatement of pollution, prevention of pollution:

Further improvement in dust suppression 02 (Two) numbers Mist Generators (Water mist cannon) have been installed at Tasra Siding. The mine is in initial development stage, temporary approach road is being maintained. Approach roads and haul roads are being maintained by road grader and continuous water sprinkling is being done for dust suppression. Natural plants are there at all along of the temporary approach road.

PART-I

Any other particulars for improving the quality of the environment:

World Environment Day was celebrated on 5th June 2024 for spreading environmental awareness amongst the populace surrounding Tasra open cast project. Tree plantation drive was also conducted along the haul road of mine.