



TSL/FAMD/SAR/FY26/2565

Date: 28-05-2025

To,
The Member-Secretary,
State Level Environment Impact Assessment Authority (SEIAA), Odisha,
5RF-2/1, Acharya Vihar, Unit - IX, OPTCL Colony,
Anand Bazar, Bhoi Nagar, Bhubaneswar, Odisha 751022

Subject: Submission of half-yearly compliance report on the stipulated environmental clearance terms and conditions in respect of Saruabil Chromite Block of M/s Tata Steel Limited, for the period October 2024 to March 2025 to SEIAA, Odisha, MoEF&CC, & IRO, CPCB & SPCB, Odisha.

Reference:

- 1) MoEF EC Letter Identification No. EC23B001OR155576, File No. 78946/93-MINB1/07-2022,
- 2) MoEF&CC's notification vide S.O-5845, dt. 28th Nov 2018


Respected Sir,

We are herewith submitting the six-monthly compliance report on the status of the implementation of conditions stipulated in environmental clearance in favor of Saruabil Chromite Block of M/s Tata Steel Limited vide SEIAA EC Letter Identification No. EC23B001OR155576, Dated 06.06.2023, for the period from October 2024 to March 2025 for your kind perusal.

This is in reference to the MoEF&CC's notification vide S.O-5845, dt. 28th Nov 2018 and as per the Miscellaneous EC condition number (III), VII) & (IX), the online submitted six-monthly compliance report with required annexures is being submitted through e-mail to @ roez.bsr-mef@nic.in , seiaaodisha@gmail.com and Hard copy to SEIAA, Odisha, MoEF&CC, & IRO, CPCB & SPCB, Odisha.

We believe the above submission is in order.

Thanking You.
Yours faithfully,
f: Tata Steel Limited


Mine Manager,
Saruabil Chromite Block

Copy to:

1. Dy. Director General, Integrated Regional Office, Ministry of Environment and Forest & Climate Change, Eastern Region Office, A/3, Chandrasekharpur, Bhubaneswar-751023
2. The Director, Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhawan, Aliganj, Jorbagh Road, New Delhi-110 003
3. The Regional Directorate, Central Pollution Control Board, 'South end Conclave' Block-502, 5th & 6th Floor, 1582, Razidanga, Main Road, Kolkata- 700107
4. Member Secretary, State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakantha Nagar, Bhubaneswar, 751012.

TATA STEEL LIMITED

Ferro Alloys & Minerals Division | Saruabil Chromite Mine | Kalarangiatta | Jajpur | Odisha-755028
Registered Office Bombay House 24 Homi Mody Street Fort Mumbai 400 001 India
Tel 91 22 6665 8282 Fax 91 22 6665 7724 Website www.tatasteel.com

Your (**Half Yearly Compliance Report**) has been **Submitted** with following details

| | |
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| Proposal No | SIA/OR/MIN/78946/2020 |
| Compliance ID | 113064982 |
| Compliance Number(For Tracking) | EC/M/COMPLIANCE/113064982/2025 |
| Reporting Year | 2025 |
| Reporting Period | 01 Jun(01 Oct - 31 Mar) |
| Submission Date | 30-05-2025 |
| RO/SRO Name | Shri Senthil Kumar Sampath |
| RO/SRO Email | agmu156@ifs.nic.in |
| State | ODISHA |
| RO/SRO Office Address | Integrated Regional Offices, Bhubaneswar |

Note:- SMS and E-Mail has been sent to Shri Senthil Kumar Sampath, ODISHA with Notification to Project Proponent.

**Half Yearly Compliance Report
2025
01 Jun(01 Oct - 31 Mar)**

Acknowledgement

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|--|---|-------------------------------|-----------------|--|--|
| Proposal Name | Saruabil Chromite Block (ML Area: 246.858 Ha) with a production of 1.0 MTPA Chromite Ore (ROM) with maximum excavation of 6.48 Million Cum per Annum through Opencast Mining at villages Saruabil, Kamarda, and Tailangi under Sukinda Tehsil, Jajpur District of Odisha State. | | | | |
| Name of Entity / Corporate Office | Tata Steel Limited | | | | |
| Village(s) | BALIPADA | | | | |
| District | JAJAPUR | | | | |
| Proposal No. | SIA/OR/MIN/78946/2020 | Category | Non-Coal Mining | | |
| Plot / Survey / Khasra No. | | Sub-District | Kaliapani | | |
| State | ODISHA | Entity's PAN | *****2803M | | |
| MoEF File No. | 78946/93-MINB1/07-2022 | Entity name as per PAN | UTSAV KASHYAP | | |

Compliance Reporting Details

Reporting Year 2025
Remarks (if any)
Reporting Period 01 Jun(01 Oct - 31 Mar)

Details of Production and Project Area

Name of Entity / Corporate Office Tata Steel Limited

| | Project Area as per EC Granted | Actual Project Area in Possession |
|--------------|--------------------------------|-----------------------------------|
| Private | 0 | 0 |
| Revenue Land | 5.088 | 5.088 |
| Forest | 241.77 | 241.77 |
| Others | 0 | 0 |
| Total | 246.858 | 246.858 |

Production Capacity

| Sr. no | Product Name | units | Valid Upto | Capacity | Production last year | Capacity as per CTO |
|--------|--------------------|-------------------------------|------------|----------|----------------------|---------------------|
| 1 | Chromite Ore (ROM) | Million Tons per Annum (MTPA) | 31/03/2027 | 1 | .207478 | 0.6 |

Conditions

Specific Conditions

| Sr.No. | Condition Type | Condition Details |
|--|----------------------|---|
| 1 | Statutory compliance | The proposal involves a lease area of 246.858 ha comprising of 241.77 Ha Forest land and 5.088 ha non-forest land. Forest clearance (FC) has been accorded in favor of the previous lessee over an area of 224.63 Ha by MoEFCC on dated 16.01.1997. The application for remaining for forest land i.e. 17.14 ha is yet to be accorded. The lessee has paid NPV for the entire forest land of area 241.77 ha. This EC will be restricted to 229.718 ha (224.63 ha stage-II FC available plus 5.088 Ha an on -forest land)), mining activity will be restricted to non-forest land and the area for which stage-II FC is available. |
| PPs Submission: Complied Mining operation is restricted to 229.718 ha (224.63 ha stage-II FC available and 5.088 Ha non-forest land). Application has already been submitted for diversion of balance forest land of 17.14 ha to MoEFCC. and approved in PSC-1. | | Date: 30/05/2025 |
| 2 | Statutory compliance | The production of Chromite ore - 1.0MTPA from the already diverted forest land (229.718 Ha), subject to the permission from the Indian Bureau of Mines (IBM), for the period of 1(One) year from the date of EC granted. |
| PPs Submission: Complied The mining activities are being carried out within the diverted and non-forest land i.e. 229.718 ha (224.63 ha stage-II FC available and 5.088 Ha) only. The Mining plan has been approved by Indian Bureau of Mines (IBM) vide letter No. RMP-2328/2024-25-IBM RO BBS dated 17.01.2025 to produce ROM 1.0 MPTA up to 2030. | | Date: 30/05/2025 |
| 3 | Statutory compliance | The Forest Clearance (FC) clearance issued in favor of the previous lessee shall have to be transferred in the name of Ms. Tata Steel Mining Ltd. within a period of 1(One) year from the date of EC granted. |
| PPs Submission: Being Complied Forest Clearance (FC) has been accorded over an area of 224.63 ha by MoEFCC on 16.01.1997. The FC application for the remaining forest land i.e 17.14 Ha has been applied to MoEFCC vide proposal no. FP/OR/MIN/QRY/448403/2023 dated 18.10.2023 and it is progress. We have also paid NPV for the entire forest land of area 241.773ha. We have already applied the FC transfer application with requisite fee vide letter No. TSML/MD/2290/FY22, dated 20th Dec 2021 to DFO, Cuttack. | | Date: 30/05/2025 |
| 4 | Statutory compliance | Grant of CTO after One year shall be subject to transfer of DC for 224.63 Ha in the name of M/s. Tata Steel Mining Ltd. and obtaining fresh FC for 17.14 ha. |
| PPs Submission: Being Complied As mentioned, we have already applied for the transfer application with requisite fee vide letter No. TSML/MD/2290/FY22, dated 20th Dec 2021 to DFO Cuttack for transfer of stage II FC. The FC application for the remaining forest land i.e 17.14 Ha has been applied to MoEF and CC and it is in process. | | Date: 30/05/2025 |
| 5 | Statutory compliance | The mine shall explore implementation of membrane-based technology for removing hexavalent chromium from Surface run off and mine drainage water. |

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| PPs Submission: Complied The demo experiment for removing hexavalent chromium were performed, but the results are not so efficient (only 70 PERCENT of Cr(VI) removal and high maintenance cost) due to high TSS in mine water. | | Date: 30/05/2025 |
| 6 | WATER QUALITY MONITORING AND PRESERVATION | The mine shall take adequate measures to minimize the discharge of treated water to Damsala nallah and take appropriate measures to prevent pollution of the Damsala Nallah in consultation with the SPCB. |
| PPs Submission: Complied We maximize the use of treated water for sprinkling, Plantation, Irrigation and Domestic use to ensure minimum discharge into Damsala Nallah. | | Date: 30/05/2025 |
| 7 | Risk Mitigation and Disaster Management | The project proponent shall monitor analysis of hexavalent chromium in nearby soil and water body periodically and follow mitigation measures, if necessary. |
| PPs Submission: Complied We are regularly monitoring the hexavalent chromium in nearby water body and soil. Monthly report is submitted to OSPCB. | | Date: 30/05/2025 |
| 8 | Corporate Environmental Responsibility | The budget of Rs. 144.65 Lakhs allocated towards CER/ to be completed within 3 years from the date of start of mining operations as proposed. PP shall also comply at I action plans made for public hearing concerns and make regular maintenance and record the progressive activity outcomes. Further, the PP shall at so comply all activities listed in CSR activities, as proposed. |
| PPs Submission: Being Complied As per the company Annual Business Plan, we have taken year wise targets from April 2024 to complete within 3years. For current year, following activities were conducted: Providing Bus for High Schools Providing Ambulance Health Camp organization Construction of Water conservation and recharge structure Plantation drive Construction of Amenity Centre for Truck Driver Providing Defensive driving training programmes Establishment of Computer lab in High Schools | | Date: 30/05/2025 |
| 9 | Corporate Environmental Responsibility | The amount proposed under Corporate Environment Responsibility (CER) head should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and details of implementation of CER activities along with proof of activities viz. photographs (before and after with geo-location date and time), purchase documents, photographs and Geo-location of the infrastructures/ facilities developed, etc. to the Regional Office of MoEFCC, Bhubaneswar and SEIAA, Odisha before 1st July of every year for the activities carried out during previous year. |
| PPs Submission: Complied Funds for CER activities are being tracked. The details of fund invested for CER for work carried for FY25 will be submitted to MoEFCC, Bhubaneswar and SEIAA, Odisha before 1st July 2025. | | Date: 30/05/2025 |
| 10 | Human Health Environment | The amount (except occupational health) proposed under Environmental Management Plan (EMP) head should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and detailed environment monitoring report along with proof of activities viz. photographs (before and after with geo-location date and time), purchase documents, sampling reports, photographs and Geo-location of the infrastructures/facilities developed, details of persons engaged in Environment Management Cell etc. to the Regional Office of |

| | | MoEFCC, Bhubaneswar and SEIAA, Odisha before 1st July of every year for the activities carried out during previous year. |
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| PPs Submission: Being Complied A dedicated cost Centre for maintaining all environmental expenditure is maintained in a separate GL account having a unique cost centre mapped in the SAP system. All sorts of environmental protection related expenditures are booked in the said cost centre for accounting purpose. The audited statement for the cost centre with environmental management activities and environmental monitoring report will be submitted to Regional Office of MoEFCC, Bhubaneswar and SEIAA, Odisha before 1st July 2025 for activities carried out during FY 25. | | Date: 30/05/2025 |
| 11 | Human Health Environment | The amount proposed under Occupational Health plan head should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and detailed environment monitoring report along with proof of activities viz. photographs (before and after with geo-location date and time), purchase documents, sampling reports, photographs and Geo-location of the infrastructures/facilities developed, details of persons engaged in Environment Management Cell etc. to the Regional Office of MoEFCC, Bhubaneswar and SEIAA, Odisha before 1st July of every year for the activities carried out during previous year. |
| PPs Submission: Complied Cost centre-based SAP system for tracking our finances have been implemented and the system is audited regularly. The audited statement for the cost centre with environmental management activities, environmental monitoring report and detail of Environment Management Cell will be submitted to Regional Office of MoEFCC, Bhubaneswar and SEIAA, Odisha before 1st July 2025 for activities carried out during FY 25. | | Date: 30/05/2025 |
| 12 | GREENBELT | The PP shall undertake the adequate plantation in peripheral zone as well as gap plantation with the seedling of 6-8ft height with at least 90 percent survival rate to control the dust at source and should be completed within 3 years from the date of commencement of mining operations. Causalities of the previous year should be replaced other than the saplings proposed to be planted every year. |
| PPs Submission: Complied 7.5 meters wide safety zone plantation is being maintained all around the mine lease. The adequate plantation in peripheral zone (safety zone) as well as gap plantation with the seedling of 6-8ft height with at least 90 percent survival rate will be done to control the dust at source. The plantation will be completed within 3 years from the date of commencement of mining operations. Causalities of the previous year will be replaced other than the saplings proposed to be planted every year. | | Date: 30/05/2025 |
| 13 | Statutory compliance | The proponent shall comply all the specific conditions as recommended by CSIR-NEERI in time bound manner as applicable for the project. |
| PPs Submission: Complied Applicable specific conditions as recommended by CSIR-NEERI are being complied in time bound manner. | | Date: 30/05/2025 |
| General Conditions | | |
| Sr.No. | Condition Type | Condition Details |
| 1 | Statutory compliance | The Project Proponent shall obtain consents from all the concerned landowners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it. |

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| PPs Submission: Being Complied Majority of the lease area is under forest and only 5.088 Ha non-forest land. No patta land is residing within the mine lease area and Lease deed with land schedule is approved by Govt. | | Date: 30/05/2025 |
| 2 | MISCELLANEOUS | The Project Proponent shall prepare digital map (land use and land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MOEFCC. |
| PPs Submission: Agreed to Comply The digital map (land use and land cover) of the entire lease area will be submitted after 5years to the Regional Office of the MOEFand CC. | | Date: 30/05/2025 |
| 3 | MISCELLANEOUS | The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work. |
| PPs Submission: Agreed to Comply Already developed project, Final Mine closure to be submitted after approval of FMCP from IBM. | | Date: 30/05/2025 |
| 4 | LAND RECLAMATION | The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan. |
| PPs Submission: Complied The reclamation is being carried out in a scientific manner as per approved Mining Plan cum Progressive Mine Closure Plan. | | Date: 30/05/2025 |
| 5 | Statutory compliance | Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board. |
| PPs Submission: Complied Consent to Establish was obtained vide Order No. 10964/IND-II-CTE-6887, dated 12.07.2023 and Consent to Operate has been obtained vide order No. 5674/IND-I-CON-220, dated 24.03.2025 from State Pollution Control Board. | | Date: 30/05/2025 |
| 6 | Statutory compliance | The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development and Regulation), Act, 2015 and rules and regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time. |
| PPs Submission: Complied Applicable rules and regulation of Mines Act, 1952, Mines and Mineral (Development and Regulation) Act, 2015 are being complied. We are also complying to various circulars of Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time | | Date: 30/05/2025 |
| 7 | Statutory compliance | This Environmental Clearance (EC) is subject to orders/ judgment of Hon ble Supreme Court of India, Hon ble High Court, Hon ble NGT and any other Court of Law, Common Cause Conditions as may be applicable. |
| PPs Submission: Agreed to Comply Agreed as per applicable conditions | | Date: 30/05/2025 |

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| 8 | Statutory compliance | The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining and Geology in strict compliance of Judgment of Hon ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India and Ors. |
| PPs Submission: Complied Entire compensation is paid and is being paid time to time as per Department of Mining and Geology, Govt of Odisha. | | Date: 30/05/2025 |
| 9 | Statutory compliance | This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEFCC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project. |
| PPs Submission: Complied As per the previous stage -II forest clearance, The NBWL Clearance is not required for this project. The NOC was obtained by previous lessee and same is attached as Annexure I. | | Date: 30/05/2025 |
| 10 | Statutory compliance | This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, as applicable to the project. |
| PPs Submission: Complied Mining operation is restricted to 229.718 ha (224.63 ha stage-II FC available and 5.088 Ha non-forest land). Application has already been submitted for diversion of balance forest land of 17.14 ha to MoEFCC. | | Date: 30/05/2025 |
| 11 | Statutory compliance | The Project Proponent shall follow the mitigation measures provided in MoEFCCs Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area. |
| PPs Submission: Complied Necessary precaution and best mining practices are being followed to reduce impacts on nearby villagers. | | Date: 30/05/2025 |
| 12 | Statutory compliance | The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of groundwater for the project. |
| PPs Submission: Complied NOC has been obtained for ground water abstraction with order no. CGWA/NOC/MIN/ORIG/2024/21019 valid up to 25/11/2026. | | Date: 30/05/2025 |
| 13 | Statutory compliance | A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal. |
| PPs Submission: Complied Copy of EC letter was submitted to concerned Panchayat, Zilla Parishad and Block Development Officer vide letter nos. TSL/SAR/061/FY24/01, TSL/SAR/061/FY24/03, TSL/SAR/061/FY24/04 from whom suggestion / representation has been received while processing the proposal. | | Date: 30/05/2025 |
| 14 | Statutory compliance | State Pollution Control Board shall be responsible for display of |

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| | | this EC letter at its Regional office, District Industries Centre and Collectors office/ Tahasildars Office for 30 days. |
| PPs Submission: Complied Copies of the EC letter were also submitted to State Pollution Control Board, its Regional office, District Industries Centre and Collectors office/ Tahasildars Office for display vide letter nos. TSL/SAR/061/FY24, TSL/SAR/061/FY24/05 and TSL/SAR/061/FY24/06. | | Date: 30/05/2025 |
| 15 | Statutory compliance | The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board and web site of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEFCC Regional Office for compliance and record. |
| PPs Submission: Complied The EC approval was published in two local newspapers, The Pagatibadi (Oriya daily) and The Pioneer, Bhubaneswar (English daily) on 10.11.2023. The advertisements were done mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board and web site of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). | | Date: 30/05/2025 |
| 16 | Statutory compliance | The Project Proponent shall inform the MoEFCC/SEIAA, Odisha for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time. |
| PPs Submission: Agreed to Comply As per the Scheme of Amalgamation of Tata Steel Mining Limited (TSML CIN No. U27109OR2004PLC009683) into and with Tata Steel Limited (CIN-L27100MH1907PLC000260) (Scheme of Amalgamation), and its approval and sanction by the Honble National Company Law Tribunal, Cuttack Bench vide Order (NCLT Order), in terms of Clause 8.1 read with Clause 9.1(h) of Part I of the Scheme of Amalgamation, the captioned Scheme of Amalgamation of Tata Steel Mining Limited (TSML) into and with Tata Steel Limited has become operative and effective from September 1, 2023 (Effective Date). The name change of the EC letter has been accorded by MoEFCC. | | Date: 30/05/2025 |
| 17 | AIR QUALITY MONITORING AND PRESERVATION | The Project Proponent shall monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO2; CO and SOx etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main gate of the mine site. |
| PPs Submission: Complied Monitoring of relevant AAQ parameters is being done as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 in the impact zone. The data is being submitted to Board on monthly basis and displayed in digital display board in front of the main gate of the mine site. | | Date: 30/05/2025 |
| 18 | AIR QUALITY | Effective safeguard measures for prevention of dust generation and |

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| | MONITORING AND PRESERVATION | subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEFCC/ Central Pollution Control Board. |
| PPs Submission: Complied Regular water sprinkling is being carried out with water tanker and fixed sprinkling in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. 500 mtrs length of fixed sprinkling has already been installed along major haul roads. Use of suitable water-soluble chemical dust suppressing agents will be explored for better effectiveness of dust control system. Air pollution level are conforming to the standards prescribed by the MoEFCC/ Central Pollution Control Board. | | Date: 30/05/2025 |
| 19 | WATER QUALITY MONITORING AND PRESERVATION | In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and SEIAA, Odisha is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area. |
| PPs Submission: Complied NOC for ground water abstraction has been obtained with order no. CGWA/NOC/MIN/ORIG/2024/21019 valid up to 25/11/2026. | | Date: 30/05/2025 |
| 20 | WATER QUALITY MONITORING AND PRESERVATION | Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The water table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Integrated Regional Office of the Ministry, CGWA and State Groundwater Department/ State Pollution Control Board. |
| PPs Submission: Complied Regular monitoring of the flow rate of the Damsala nallahs flowing north side of the mine lease is being carried out and records are being maintain. No natural water bodies or streams which are flowing in an around the mine lease are being disturbed. In case of any water scarcity in the area, we provide water to the villagers for their use. Regular monitoring of ground water table is being carried out by installation of piezometers. The Report on changes in Ground water level and quality is being submitted on six-monthly basis to the Integrated Regional Office of the Ministry, CGWA and State Groundwater Department/ State Pollution Control Board. | | Date: 30/05/2025 |
| 21 | WATER QUALITY MONITORING AND PRESERVATION | Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The |

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| | | Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Integrated Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board. |
| PPs Submission: Complied Regular monitoring of ground water table is being carried out by installation of piezometers. The Report on changes in Ground water level and quality is being submitted on six-monthly basis to the Integrated Regional Office of the Ministry and State Pollution Control Board. | | Date: 30/05/2025 |
| 22 | WATER QUALITY MONITORING AND PRESERVATION | Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-a-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no -obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of SEIAA, Odisha. The monitoring of water courses/ bodies existing lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data be sent regularly to the Integrated Regional Office, Bhubaneswar of MoEFCC, Gol, SEIAA, Odisha, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis. |
| PPs Submission: Complied Regular monitoring of the flow rate and quality (upstream and downstream) of the Damsala nallahs flowing north side of the mine lease is being carried out and records are maintained. The natural water is not disturbed. Regular monitoring of pH and other water quality parameters are being analysed and reported monthly. The trend analysis of water quality parameters is being submitted on six-monthly basis to the Integrated Regional Office of the Ministry, CGWA and State Groundwater Department/ State Pollution Control Board on six-monthly basis. | | Date: 30/05/2025 |
| 23 | WATER QUALITY MONITORING AND PRESERVATION | Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in run-off shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012/1 /2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard. |
| PPs Submission: Complied The water quality parameters such as Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in run-off shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS) are being analysed for the effluent generated from mining operations and treated. The monthly average data is being displayed in display board near the main gate and six monthly in website. | | Date: 30/05/2025 |
| 24 | WATER QUALITY MONITORING AND PRESERVATION | The project proponent shall construct retaining wall and settling pond within the lease area. Further, check dams shall be constructed at strategic locations in which rainwater passes in rainy season. |

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| | | Finally, the excess supernatant after sedimentation shall be allowed to spill away through stone pitch structure to the nearby valley. |
| PPs Submission: Complied Retaining wall, garland drain, settling pit and check dams are constructed as per approved mining plan for management of dump and surface run-off. The run-off is being guided through concrete drain to the Central Effluent Treatment Plant for treatment and discharge during rainy season. | | Date: 30/05/2025 |
| 25 | WATER QUALITY MONITORING AND PRESERVATION | De-silting of agricultural lands in buffer zone and beyond including nearby Nalas/rivers perennially periodically and perpetually caused due to wash up of minerals/OB/dumps shall be done as per SOP submitted. Retaining wall shall be constructed to ensure that no silt after wash up is escaped from the core / buffer zone of the mines. |
| PPs Submission: Complied No spill over or wash-up material is dumped in nearby nalla/river. The drain is de-silted before monsoon period every year. | | Date: 30/05/2025 |
| 26 | WATER QUALITY MONITORING AND PRESERVATION | Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Integrated Regional Office, MoEFCC as a part of compliance in the six monthly compliance report. |
| PPs Submission: Complied We have constructed two rooftop rain water harvesting structures for ground water recharge. The details of water recharged is attached as annexure II. | | Date: 30/05/2025 |
| 27 | WATER QUALITY MONITORING AND PRESERVATION | Industrial wastewater (workshop and waste water from the mine) should be properly collected and treated in an ETP as proposed so as to conform to the notified standards prescribed from time to time, as applicable. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap. |
| PPs Submission: Complied Contaminated water is being treated in ETP before discharge. The wastewater from workshop is recycled for washing purpose after treatment through oil and sediment separation. | | Date: 30/05/2025 |
| 28 | WATER QUALITY MONITORING AND PRESERVATION | The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEFCC and State Pollution Control Board. |
| PPs Submission: Complied Water audit has been conducted by TERI, New Delhi, Implementation of the recommendations are in progress. | | Date: 30/05/2025 |
| 29 | Noise Monitoring & Prevention | The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines. |
| PPs Submission: Complied Blast induced vibration and peak particle velocity study has been conducted by NIT, Rourkela and the recommendations are being complied. | | Date: 30/05/2025 |
| 30 | Noise Monitoring & Prevention | The illumination and sound at night at project sites disturb the |

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| | | villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours. |
| PPs Submission: Complied Biological clock of the villages is not disturbed with limited night operation and by orienting the floodlights/ masks only in the mining operation areas at night. Schedule maintenance of the HEMM is being carried out to reduce noise and continuous monitoring is being done at night. | | Date: 30/05/2025 |
| 31 | Noise Monitoring & Prevention | The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The worker engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment. |
| PPs Submission: Complied Ear plug/muffs and respiratory masks are being provided to workers working high noise and dust prone areas. It is a general PPE compliance to the Tata Steels safety rules. Schedule maintenance of the HEMM is being carried out to reduce noise and continuous monitoring is being done. | | Date: 30/05/2025 |
| 32 | MINING PLAN | The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc. No change in basic mining proposal like mining technology, total excavation, mineral and waste production, lease area and scope of working (viz. method of mining, overburden and dump management, O.Band dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of competent authority which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name. |
| PPs Submission: Complied We have adhered to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden etc. No change in basic mining proposal like mining technology, total excavation, mineral and waste production, lease area and scope of working (viz. method of mining, overburden and dump management, O.B and dump mining, mineral transportation mode, ultimate depth of mining etc.) are same as per the mining plan. If any modification in mining plan will be carried out and same will be approved by IBM, the approved modified mining plan will be submitted, and prior approval will be obtained from Ministry. | | Date: 30/05/2025 |
| 33 | MINING PLAN | The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining and Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification. |

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| PPs Submission: Agreed to Comply We will submit the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining and Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan will be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification. | | Date: 30/05/2025 |
| 34 | MINING PLAN | The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-a-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the concerned Integrated Regional Office, Bhubaneswar of MoEFCC, Gol. |
| PPs Submission: Agreed to Comply The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life is being governed as per the approved Mining Plan. The mature mined out areas will be backfilled, and rehabilitation measures will be taken until the vegetation becomes self-sustaining. Compliance status of the same will be submitted half-yearly to the concerned Integrated Regional Office, Bhubaneswar of MoEF and CC, Gol | | Date: 30/05/2025 |
| 35 | LAND RECLAMATION | The Overburden (O.B.) generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of topsoil/OB dumps. The topsoil shall be used for land reclamation and plantation. |
| PPs Submission: Complied The overburden is stacked in earmarked areas as per approved mining plan with proper height and slope. The guidelines/circulars issued by D.G.M.S are strictly followed and complied. Year wise reclamation through plantation is being carried out as per approved mining plan. | | Date: 30/05/2025 |
| 36 | LAND RECLAMATION | The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps. |
| PPs Submission: Complied During mining operation, OB and ROM is produced. Overburden (less 10 percent chromite) is stacked at earmarked waste dump site(s) only as per approved mining plan. All the safety guidelines are being strictly followed to maintain the stability of waste dumps. | | Date: 30/05/2025 |
| 37 | LAND RECLAMATION | The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical |

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| | | areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump. |
| PPs Submission: Complied The dumps slopes are vegetated with native saplings to maintain the slope stability, prevent erosion and surface run-off as per the direction of local forest department. Proper drainage arrangement has been constructed to channelize the run-off water without forming any gullies. The dump mass is compacted with the help of dozer for proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes etc. will be carried out for stabilization of the dump. | | Date: 30/05/2025 |
| 38 | LAND RECLAMATION | The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEFCC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha. |
| PPs Submission: Complied The slope stability study was carried out by CSIR-Central Institute of Mining and Fuel Research (CSIR-CIMFR) and the report has been submitted in FY 25 H1 EC compliance uploaded in Parivesh Portal. | | Date: 30/05/2025 |
| 39 | LAND RECLAMATION | Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and topsoil / OB / waste dumps to prevent runoff of water and flow of sediments directly into the water bodies (Nallah/ River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly. |
| PPs Submission: Complied The catch drains and siltation ponds of appropriate size is constructed around the mine working, mineral and OB dumps to prevent run off water and flow of sediments directly into the river and other water bodies. The drains and settling pits are regularly de-silted by mechanized means and maintained properly. Desilting of garland drains, channels and sedimentation pits is being carried out and will be carried out before and after monsoon season. | | Date: 30/05/2025 |
| 40 | LAND RECLAMATION | Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50 percent shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the comers of the garland drains. |
| PPs Submission: Complied Check dams of appropriate size, gradient and length is constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies as per mining plan. We have kept our non-working quarry as sumps to collect and store the excess water during storm or peak rainfall. However, we have constructed 1200m3/hr CETP to treat the water run-off water before discharge. | | Date: 30/05/2025 |
| 41 | LAND RECLAMATION | The topsoil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the topsoil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose. |

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| PPs Submission: Complied This mine is a brown field mines and no topsoil generated till date. If any topsoil will generate, same will be stored at earmarked area and will be used for land reclamation and plantation purpose | | Date: 30/05/2025 |
| 42 | LAND RECLAMATION | The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. |
| PPs Submission: Agreed to Comply After ceasing mining operations, we will undertake re-grassing the mining area and any other area to restore the land to a condition which is fit for growth of fodder, flora and fauna etc. | | Date: 30/05/2025 |
| 43 | Statutory compliance | No Transportation of the minerals shall be allowed in case of roads passing through transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers. |
| PPs Submission: Complied The state highway is passing through the mining lease, and we have applied for diversion of the road o with nodal State Govt. Department with requisite cost for diversion. This road is being used by all other mine owners to transport their material from Sukinda valley. To decrease the pollution load, regular water sprinkling is being done with consultation with Regional officer, SPCB, Kalinganagar. Vehicular emissions are kept under control and regularly monitored. We obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers, which is a part of our vehicle fitness for mining operations. | | Date: 30/05/2025 |
| 44 | AIR QUALITY MONITORING AND PRESERVATION | The Main haulage road within the mine lease should be provided with a permanent water arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions. |
| PPs Submission: Complied Fixed water sprinkler are installed and the remaining length of the haul road will be fitted with fixed water sprinkling in phase wise. Additionally, frequent waer sprinkling is also done through tanker-mounted water sprinkling system to suppress the dust emission. | | Date: 30/05/2025 |
| 45 | Statutory compliance | Traffic management shall be done as per recommendation of Traffic Management Study Report. |

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| PPs Submission: Being Complied We have applied for diversion of the state highway road to nodal State Govt. Department with requisite cost for diversion. After diversion, the recommendation of traffic management study report will be implemented. | | Date: 30/05/2025 |
| 46 | Statutory compliance | The Project Proponent shall provide parking plaza for the heavy vehicles within the lease area as per recommendation of NEERI, if applicable to the project |
| PPs Submission: Complied Parking plaza cum amenity centre has been provided for the drivers and transport vehicles within the lease area as per recommendation of NEERI report. | | Date: 30/05/2025 |
| 47 | GREENBELT | The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan. |
| PPs Submission: Being Complied About 60 percent of the 7.5m wide safety zone is being maintained all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. Some portion of the safety zone is not maintained due to encroachment of the local people and will be maintained after successful implementation of Odisha State R and R policy. About 16,871 nos of local saplings are planted in dump for more survival rate with tree density of 2500 per hectare till FY25. After completion of backfilling in mined out quarries, plantation will be done for reclamation and rehabilitation of the lease area. | | Date: 30/05/2025 |
| 48 | GREENBELT | The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees. |
| PPs Submission: Complied About 16,871 nos of local saplings are planted in dump for more survival rate with tree density of 2500 per hectare till FY25. After completion of backfilling in mined out quarries, plantation will be done for reclamation and rehabilitation of the lease area. | | Date: 30/05/2025 |
| 49 | GREENBELT | The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted. |
| PPs Submission: Agreed to Comply The entire mine area of 246.858Ha comprises of 241.773.78 Ha of forest land and 5.088Ha non- | | Date: |

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| forest land. No such grazing land have been acquired by the company. In future, if required alternate areas for livestock grazing will be arranged in consultation with the State Government. | | 30/05/2025 |
| 50 | GREENBELT | The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wildlife Warden of the State Govt and implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry. |
| PPs Submission: Being Complied Conservation measures for protection of flora and fauna in the core and buffer zone are being carried out as per the direction of the local forest and wildlife department. Previous lessee site-specific wildlife management plan is vested to TSML and same will be managed. We are in process for diversion of 17.14 ha of Sabik Forest land and required conservation measures will be taken. | | Date: 30/05/2025 |
| 51 | Human Health Environment | The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEFCC Regional Office and DGMS on half-yearly basis. |
| PPs Submission: Complied We have appointed Utkal Poly Clinic, Bhubaneswar (An occupational Health Expert Organisation) for the said Job. The health check-up is being carried out on regular basis. In order to prevent the occupational health hazard, periodical medical examination of workers engaged in the mining activities is carried out as per the DGMS guidelines by the certified Surgeon. M/s TSL has established one non-bed dispensary to carry out health check-up program by qualified medical Surgeon Day to day basis and fist-add to any injury. TSF unit has conducted medical camps in nearby community for malaria, Nutrition, Vector Born disease, cataract etc in recent days. | | Date: 30/05/2025 |
| 52 | Human Health Environment | A commitment in form of an undertaking for periodical occupational health checkup of the employee and the local people shall be done through an occupational health expert as per the detailed action plan submitted with the proposal within 6 months from the date of issue of Environmental Clearance. |
| PPs Submission: Complied We have established one non-bed dispensary to carry out health check-up program by qualified medical Surgeon on Day to day basis and for providing first-aid to any injury. Tata Steel Foundation conduct medical check-up for nearby community on regular basis. | | Date: 30/05/2025 |
| 53 | Human Health Environment | The Project Proponent must demonstrate commitment to work towards Zero Harm from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighbourhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to biomass cooking. The proponent shall also create awareness and |

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| | | educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years. |
| PPs Submission: Complied Tata Steel Limited has implemented robust Workplace procedures integrated with safety management standards in its operations for ensuring safe working. An Emergency Management Plan (EMP) is prepared outlining the possible Safety and Health Risk Assessment (HRA) for identification of workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers. Awareness programs on health and sanitation are also regularly conducted. | | Date: 30/05/2025 |
| 54 | Human Health Environment | <p>The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) estimation in Blood; For Inorganic Chromium-Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for Physical examination and tests. 30 years, including the results of and the records of The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).</p> |
| PPs Submission: Complied Periodic health checkup is carried out for all workers and employees, which include checkups for body height and weight, PFT, Chest X-ray, audiometry etc. by a certified Medical practitioner. Records for the same are regularly maintained. | | Date: 30/05/2025 |
| 55 | Human Health Environment | <p>The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 - 24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities,(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1),Forced Vital Capacity (F VC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEFCC annually along with details of the relief and compensation paid to workers having above indications.</p> |
| PPs Submission: Complied Periodic health checkup for all workers is conducted which includes eye test, audiometry, Lung function test, Chest X-ray, ECG and pathological investigations. The annual health checkup report | | Date: 30/05/2025 |

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| for FY25 will be submitted to RO, MOEFCC. | | |
| 56 | Human Health Environment | The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. |
| PPs Submission: Complied Wet drilling is a common practice in the mines. Further all dusty areas are being wetted by water sprinkling arrangement. Staffs and Workers exposed to dust prone areas are provided with all PPEs. Regular training is given to all staff at our VT Centre to educate them on safety and health aspects. | | Date: 30/05/2025 |
| 57 | Human Health Environment | Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic wastewater should be treated with STP in order to avoid contamination of underground water. |
| PPs Submission: Complied Majority of the workers are from local areas. We have constructed temporary residential facility with all facilities for the labour within the lease hold area and provided facilities like toilets, safe drinking water, medical health care and creche for kids. | | Date: 30/05/2025 |
| 58 | PUBLIC HEARING | The project proponent shall submit the time-bound action plan to the concerned integrated regional office of the Ministry within 6 months from the date of issuance of environmental clearance for undertaking the activities committed during public hearing by the project proponent and as submitted to SEAC, in terms of the provision of the MoEF CC Office Memorandum No-22-65/2017-1A.111 dated 30" September,2020. The action plan shall be implemented within three years of the commencement of the project. |
| PPs Submission: Being Complied The applicable activities committed during Public hearing are being complied as in time bound manner and implementation to be completed by FY 26. | | Date: 30/05/2025 |
| 59 | PUBLIC HEARING | The activities proposed in action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the action plan and within the stipulated time frame. The status report on implementation of action plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration. Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the IRO, Bhubaneswar, MoEFCC, OSPB and SEIAA, Odisha. |
| PPs Submission: Being Complied The activities proposed in action plan prepared for addressing the issues raised during the Public Hearing are being completed. The status report on implementation of action plan will be submitted to the concerned Regional Office of the Ministry along with District Administration. The funds earmarked for environmental protection measures is kept in separate cost centre and will not be diverted for other purposes. | | Date: 30/05/2025 |
| 60 | MISCELLANEOUS | The Project Proponent shall submit six monthly compliance reports |

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| | | on the status of the implementation of the stipulated environmental safeguards to the concerned Integrated Regional Office (IRO), Bhubaneswar of Ministry, SEIAA, Odisha, Central Pollution Control Board and State Pollution Control Board. |
| PPs Submission: Complied Six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards is being submitted to the concerned Integrated Regional Office (IRO), Bhubaneswar of Ministry, SEIAA, Odisha, Central Pollution Control Board and State Pollution Control Board. | | Date: 30/05/2025 |
| 61 | MISCELLANEOUS | An Environmental Management Plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. A separate Environmental Management Cell with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEFCC. |
| PPs Submission: Complied We have established a separate Environmental Management Cell with qualified persons which is headed by top Management. | | Date: 30/05/2025 |
| 62 | MISCELLANEOUS | The project proponent shall augment infrastructure on drinking water, health care and education in nearby villages as per time bound action plan submitted. |
| PPs Submission: Complied We have augmented the infrastructure on drinking water, health care and education in nearby villages through our Tata Steel Foundation team. | | Date: 30/05/2025 |
| 63 | MISCELLANEOUS | The project proponent shall obtain permission from DGMS under 106(2b) to carry out blasting operation within the lease area. |
| PPs Submission: Complied We have obtained permission from DGMS under 106(2b) to carry out blasting operation within the lease area vide NOC NO: 180048/SEZ/Bhubaneshwar Region/Perm/2021/9271, Date: 28/05/2021 valid up to 5years. | | Date: 30/05/2025 |
| 64 | MISCELLANEOUS | It shall be mandatory for the project management to submit six (06) monthly compliance reports on post environmental monitoring in respect of the stipulated terms and conditions in this Environmental Clearance to the State Environment Impact Assessment Authority (SEIAA), Odisha, SPCB and Regional Office of the Ministry of Environment and Forest, Odisha in hard and soft copies on 1st June and 1st December of each calendar year. The proponent shall also upload the six monthly compliance report including results of monitored data, as applicable in the website of the Ministry(www.parivesh.nic.in) or monitoring of EC Conditions. |
| PPs Submission: Complied Six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards is being submitted to the concerned Integrated Regional Office (IRO), Bhubaneswar of Ministry, SEIAA, Odisha, Central Pollution Control Board and State Pollution Control Board in hard copy and through mail. The compliance report is also being uploaded in Ministry website (www.parivesh.nic.in). | | Date: 30/05/2025 |
| 65 | MISCELLANEOUS | The environmental statement for each financial year ending 31 March in Form-V as is mandated to be submitted by the project proponent to the Odisha State Pollution Control Board as prescribed |

| | | |
|---|---------------|--|
| | | under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective to the concerned Integrated Regional Office (IRO), Bhubaneswar of MoEFCC, Gol, Central Pollution Control Board and State Pollution Control Board. |
| PPs Submission: Complied The environmental statement for financial year ending 31st March in Form-V vide letter No. TSL/FAMD/SAR/FY25/1399 on dated 30.09.2024 was submitted to the Odisha State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986. The Environmental statement is also uploaded our company website along with the status of compliance of EC conditions. The same is also being sent to the Integrated Regional Office (IRO), Bhubaneswar of MoEFCC, Gol, Central Pollution Control Board and State Pollution Control Board. | | Date: 30/05/2025 |
| 66 | MISCELLANEOUS | The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEFCC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO ₂ , NO _x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain. |
| PPs Submission: Complied We have uploaded six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on our website (www.tatasteel.com) and is being updated periodically. | | Date: 30/05/2025 |
| 67 | MISCELLANEOUS | The concerned Regional Office of the MoEFCC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEFCC officer(s) by furnishing the requisite data information / monitoring reports. |
| PPs Submission: Agreed to Comply Agreed and will be extended full cooperation to- the MoEFCC officer(s) by furnishing the requisite data information / monitoring reports during inspection. | | Date: 30/05/2025 |
| 68 | MISCELLANEOUS | The SEIAA, Odisha may revoke or suspend the EC, if implementation of any of the above stipulated conditions is not satisfactory. The SEIAA, Odisha reserves the right to alter /modify the above conditions or stipulate any further condition in the interest of environment protection. |
| PPs Submission: Agreed to Comply Agreed | | Date: 30/05/2025 |
| 69 | MISCELLANEOUS | The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court and any other Court of Law relating to the subject matter. |
| PPs Submission: Agreed to Comply Agreed | | Date: |

| | | |
|--|----------------------|--|
| | | 30/05/2025 |
| 70 | MISCELLANEOUS | This Environmental Clearance (EC) is subject to orders/judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable. |
| PPs Submission: Agreed to Comply Agreed | | Date: 30/05/2025 |
| 71 | MISCELLANEOUS | 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. |
| PPs Submission: Agreed to Comply Agreed | | Date: 30/05/2025 |
| 72 | Statutory compliance | The Project proponent complies with all the statutory requirements and judgment of Hon ble Supreme Court dated 24 August,2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India and Ors before commencing the mining operations |
| PPs Submission: Agreed to Comply Agreed | | Date: 30/05/2025 |
| <p style="text-align: center;">Visit Remarks</p> | | |
| Last Site Visit Report Date: | | N/A |
| Additional Remarks: | | |
| <p>Note: This acknowledgement is as per the details submitted by project proponent. In no way is this document to be considered as conclusion on any action on the compliance of the project. This is strictly for the project proponent's reference purpose.</p> | | |

OFFICE OF THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS
(WILDLIFE) & CHIEF WILDLIFE WARDEN, ODISHA

BDA APARTMENT, 5TH FLOOR, PRAKRUTI BHAWAN, NILAKANTHA NAGAR, BBSR-12

Ph. No.0674-2564587, FAX No.0674-2565062

(Website:odishawildlife.org, E. mail: odishawildlife@gmail.com)

Memo No. 10180 /1WL-SSP-55/2016

Dated, Bhubaneswar the 27 Dec, 2016

To

The Divisional Forest Officer,
Cuttack Division

Sub: *Saruabil Chromite Mines of M/s Misrilall Mines (P) Ltd. in Jajpur District – Authentication of location map regarding*

Ref: *Your memo No.12385 dt 20.12.2016*

As per the location map provided by you in your memo No. cited above, the proposed tiger corridor in Daitari DPF is at a radial distance of 9.115 km from the above mining lease. No other National Parks/Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves, etc. exist within 10 km of the above mine lease.

In this regard, I am directed to enclose herewith copies of the location map (in duplicate) duly authenticated by the PCCF (WL) & CWLW, Odisha, in compliance to point No.2 of Govt. of India, MoEF&CC letter No.J-11015/72/2010-IA.II(M) dt 27.6.2016.

Encl: As above


Deputy CF (WLM)

Memo No. 10181 /date 27-12-2016

Copy forwarded to the Regional Chief Conservator of Forests, Angul Circle for information with reference to memo No.12386 dt 20.12.2016 of the DFO, Cuttack Division.


Deputy CF (WLM)

P.T.O.

✓ Memo No. 10182 /date 27-12-2016
Copy forwarded to Sri U.K.Sinha, Chief Executive Mines,
M/s Misrilal Mines (P) Ltd., Saruabil, PO - Kansa, Dist. - Jajpur, PIN
- 755028 for favour of information and necessary action.

Singh 26/12/16
Deputy CF (WLM)

Annexure-II: Estimated ground water recharge

| Location | Area (m ²) | Water Spread Factor | Recharge factor (m/day) | No. of days water available | Estimated annual water recharged |
|--|------------------------|---------------------|-------------------------|-----------------------------|----------------------------------|
| Unlined ponds/pits (inside Mine lease) | 553450 | 0.6 | 0.0014m/day | 365 | 169688 |



Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Report. No: Envlab/25-26/TR-02727

Date: 07.04.2025

SIX MONTHLY COMPLIANCE REPORT (OCT-24 TO MAR-25) AMBIENT AIR QUALITY (CORE ZONE)

Name & Address of the Client : Saruabil Chromite Block,
M/s TATA Steel Limited, Kalarangiatta, Dist. Jajpur, Odisha

| AAQMS1- Office Top | | | | | | | | | | | | |
|--------------------|---------------------------|----------------------------|--------------------------------------|--------------------------------------|-------------------------|-------------------------------------|-------------------------|--------------------------------------|------------------------------|---|------------------------------|-----------------------------|
| Monthly Average | PM10 µg/m ³ | PM2.5 µg/m ³ | SO ₂ µg/m ³ | NO _x µg/m ³ | CO mg/m ³ | O ₃ µg/m ³ | Pb µg/m ³ | NH ₃ µg/m ³ | Benzene µg/m ³ | Benzo(a) Pyrene ng/m ³ | Arsenic ng/m ³ | Nickel ng/m ³ |
| Oct-24 | 48.7 | 26.8 | 7.3 | 8.2 | 0.26 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Nov-24 | 54.1 | 31.4 | 8.1 | 9.0 | 0.29 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Dec-24 | 53.6 | 28.8 | 8.2 | 9.6 | 0.29 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Jan-25 | 59.5 | 33.8 | 8.9 | 10.0 | 0.31 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Feb-25 | 62.0 | 36.6 | 10.1 | 10.5 | 0.32 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Mar-25 | 66.2 | 38.8 | 10.2 | 12.0 | 0.38 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| AVERAGE | 57.4 | 32.7 | 8.8 | 9.88 | 0.31 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| NAAQ Standard | 100.00 (24 hours) | 60.00 (24 hours) | 80.00 (1hours) | 80.00 (1 hour) | 4.0 (1hour) | 180 (1hour) | 400 (24 hours) | 5 (Annual) | 1 (Annual) | 1 (24 hours) | 6 (Annual) | 20 (Annual) |
| Method of Testing | IS: 5182, PART-4, 23 | IS: 5182, PART-4, 23 | IS: 5182, PART-2 | IS: 5182, PART-6 | IS: 5182, PART-10 | CPCB Guidelines | IS: 5182, PART-22 | CPCB Guidelines | IS: 5182, PART-12 | IS: 5182, PART-12 | IS: 5182, PART-22 | IS: 5182, PART-22 |

Reviewed By: 


Approved By: 




Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Report. No: Envlab/25-26/TR-02728

Date: 07.04.2025

SIX MONTHLY COMPLIANCE REPORT (OCT-24 TO MAR-25)

AMBIENT AIR QUALITY (CORE ZONE)

Name & Address of the Client : Saruabil Chromite Block,
M/s TATA Steel Limited, Kalarangiatta, Dist. Jajpur, Odisha

AAQMS2- ETP TOP

| Monthly Average | PM10 µg/m3 | PM2.5 µg/m3 | SO2 µg/m3 | NOx µg/m3 | CO mg/m3 | O3 µg/m3 | Pb µg/m3 | NH3 µg/m3 | Benzene µg/m3 | Benzo(a) Pyrene ng/m3 | Arsenic ng/m3 | Nickel ng/m3 |
|-------------------|----------------------------|----------------------------|---------------------|---------------------|----------------------|--------------------|----------------------|--------------------|----------------------|-----------------------------|----------------------|----------------------|
| Oct-24 | 52.9 | 29.6 | 7.9 | 9.7 | 0.28 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Nov-24 | 58.3 | 33.9 | 9.6 | 10.0 | 0.30 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Dec-24 | 61.9 | 31.7 | 9.9 | 10.9 | 0.32 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Jan-25 | 65.0 | 36.2 | 10.1 | 11.1 | 0.33 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Feb-25 | 69.4 | 38.4 | 10.9 | 11.3 | 0.34 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Mar-25 | 72.3 | 41.2 | 12.2 | 14.5 | 0.41 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| AVERAGE | 63.3 | 35.2 | 10.1 | 11.25 | 0.33 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| NAAQ Standard | 100.00 (24 hours) | 60.00 (24 hours) | 80.00 (1hours) | 80.00 (1 hour) | 4.0 (1hour) | 180 (1hour) | 400 (24 hours) | 5 (Annual) | 1 (Annual) | 1 (24 hours) | 6 (Annual) | 20 (Annual) |
| Method of Testing | IS: 5182, PART-4, 23 | IS: 5182, PART-4, 23 | IS: 5182, PART-2 | IS: 5182, PART-6 | IS: 5182, PART-10 | CPCB Guidelines | IS: 5182, PART-22 | CPCB Guidelines | IS: 5182, PART-12 | IS: 5182, PART-12 | IS: 5182, PART-22 | IS: 5182, PART-22 |

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Reviewed By:



P. Pat

Approved By:



Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Report. No: Envlab/25-26/TR-02729

Date: 07.04.2025

SIX MONTHLY COMPLIANCE REPORT (OCT-24 TO MAR-25) AMBIENT AIR QUALITY (CORE ZONE)

Name & Address of the Client : Saruabil Chromite Block,
M/s TATA Steel Limited, Kalarangiatta, Dist. Jajpur, Odisha

| AAQMS3- Mechanical Garage | | | | | | | | | | | | |
|---------------------------|----------------------|----------------------|-------------------|-------------------|-------------------|-----------------|-------------------|-----------------|-------------------|-----------------------------|-------------------|-------------------|
| Monthly Average | PM10 µg/m3 | PM2.5 µg/m3 | SO2 µg/m3 | NOx µg/m3 | CO mg/m3 | O3 µg/m3 | Pb µg/m3 | NH3 µg/m3 | Benzene µg/m3 | Benzo(a) Pyrene ng/m3 | Arsenic ng/m3 | Nickel ng/m3 |
| Oct-24 | 54.3 | 30.4 | 8.0 | 10.2 | 0.23 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Nov-24 | 62.1 | 34.5 | 9.1 | 10.2 | 0.26 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Dec-24 | 63.5 | 33.6 | 9.8 | 10.4 | 0.27 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Jan-25 | 67.8 | 38.6 | 10.1 | 11.1 | 0.28 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Feb-25 | 69.1 | 38.3 | 10.6 | 11.5 | 0.33 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Mar-25 | 70.6 | 40.2 | 12.4 | 14.6 | 0.39 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| AVERAGE | 64.6 | 35.9 | 10.0 | 11.33 | 0.29 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| NAAQ Standard | 100.00 (24 hours) | 60.00 (24 hours) | 80.00 (1hours) | 80.00 (1 hour) | 4.0 (1hour) | 180 (1hour) | 400 (24 hours) | 5 (Annual) | 1 (Annual) | 1 (24 hours) | 6 (Annual) | 20 (Annual) |
| Method of Testing | IS: 5182, PART-4, 23 | IS: 5182, PART-4, 23 | IS: 5182, PART-2 | IS: 5182, PART-6 | IS: 5182, PART-10 | CPCB Guidelines | IS: 5182, PART-22 | CPCB Guidelines | IS: 5182, PART-12 | IS: 5182, PART-12 | IS: 5182, PART-22 | IS: 5182, PART-22 |

Reviewed By



Approved By: P. Patil





Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Report. No: Envlab/25-26/TR-02730

Date: 07.04.2025

SIX MONTHLY COMPLIANCE REPORT (OCT-24 TO MAR-25)

AMBIENT AIR QUALITY (CORE ZONE)

Name & Address of the Client : Saruabil Chromite Block,
M/s TATA Steel Limited, Kalarangiatta, Dist. Jajpur, Odisha

AAQMS4- Old Magazine

| Monthly Average | PM10 µg/m ³ | PM2.5 µg/m ³ | SO ₂ µg/m ³ | NO _x µg/m ³ | CO mg/m ³ | O ₃ µg/m ³ | Pb µg/m ³ | NH ₃ µg/m ³ | Benzene µg/m ³ | Benzo(a) Pyrene ng/m ³ | Arsenic ng/m ³ | Nickel ng/m ³ |
|-------------------|----------------------------|----------------------------|--------------------------------------|--------------------------------------|-------------------------|-------------------------------------|-------------------------|--------------------------------------|------------------------------|---|------------------------------|-----------------------------|
| Oct-24 | 51.2 | 29.2 | 9.7 | 10.8 | 0.30 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Nov-24 | 60.9 | 33.4 | 9.8 | 11.8 | 0.31 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Dec-24 | 61.6 | 32.6 | 10.0 | 12.9 | 0.31 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Jan-25 | 69.3 | 39.5 | 10.2 | 13.5 | 0.34 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Feb-25 | 70.6 | 39.8 | 10.6 | 13.9 | 0.37 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| Mar-25 | 73.9 | 40.9 | 13.6 | 15.2 | 0.51 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| AVERAGE | 64.6 | 35.9 | 10.7 | 13.02 | 0.36 | BDL | BDL | BDL | BDL | BDL | BDL | BDL |
| NAAQ Standard | 100.00 (24 hours) | 60.00 (24 hours) | 80.00 (1hours) | 80.00 (1 hour) | 4.0 (1hour) | 180 (1hour) | 400 (24 hours) | 5 (Annual) | 1 (Annual) | 1 (24 hours) | 6 (Annual) | 20 (Annual) |
| Method of Testing | IS: 5182, PART-4, 23 | IS: 5182, PART-4, 23 | IS: 5182, PART-2 | IS: 5182, PART-6 | IS: 5182, PART-10 | CPCB Guidelines | IS: 5182, PART-22 | CPCB Guidelines | IS: 5182, PART-12 | IS: 5182, PART-12 | IS: 5182, PART-22 | IS: 5182, PART-22 |

Reviewed By: 


Approved by: 


Report. No: Envlab/25-26/TR-02731

Date: 07.04.2025

SIX MONTHLY COMPLIANCE REPORT (OCT-24 TO MAR-25) AMBIENT AIR QUALITY (BUFFER ZONE)

Name & Address of the Client : Saruabil Chromite Block,
M/s TATA Steel Limited, Kalarangiatta, Dist. Jajpur, Odisha

AAQBZ1: Balipura Village

| Monthly Average | PM10 µg/m3 | PM2.5 µg/m3 | SO2 µg/m3 | NOx µg/m3 | CO mg/m3 | O3 µg/m3 | Pb µg/m3 | NH3 µg/m3 | Benzene µg/m3 | Benzo(a) Pyrene ng/m3 | Arsenic ng/m3 | Nickel ng/m3 |
|-------------------|----------------------|----------------------|-------------------|-------------------|-------------------|-----------------|-------------------|-----------------|-------------------|-----------------------------|-------------------|-------------------|
| Dec-24 | 47.6 | 27.2 | BDL | BDL | BDL | 5.5 | BDL | BDL | BDL | BDL | BDL | BDL |
| Mar-25 | 56.9 | 32.6 | BDL | BDL | BDL | 5.6 | BDL | BDL | BDL | BDL | BDL | BDL |
| AVERAGE | 53.0 | 29.9 | BDL | BDL | BDL | 5.6 | BDL | BDL | BDL | BDL | BDL | BDL |
| NAAQ Standard | 100.00 (24 hours) | 60.00 (24 hours) | 80.00 (1hours) | 80.00 (1 hour) | 4.0 (1hour) | 180 (1hour) | 400 (24 hours) | 5 (Annual) | 1 (Annual) | 1 (24 hours) | 6 (Annual) | 20 (Annual) |
| Method of Testing | IS: 5182, PART-4, 23 | IS: 5182, PART-4, 23 | IS: 5182, PART-2 | IS: 5182, PART-6 | IS: 5182, PART-10 | CPCB Guidelines | IS: 5182, PART-22 | CPCB Guidelines | IS: 5182, PART-12 | IS: 5182, PART-12 | IS: 5182, PART-22 | IS: 5182, PART-22 |

AAQBZ2: Sukurangi Village

| Monthly Average | PM10 µg/m3 | PM2.5 µg/m3 | SO2 µg/m3 | NOx µg/m3 | CO mg/m3 | O3 µg/m3 | Pb µg/m3 | NH3 µg/m3 | Benzene µg/m3 | Benzo(a) Pyrene ng/m3 | Arsenic ng/m3 | Nickel ng/m3 |
|-------------------|----------------------|----------------------|-------------------|-------------------|-------------------|-----------------|-------------------|-----------------|-------------------|-----------------------------|-------------------|-------------------|
| Dec-24 | 50.1 | 29.5 | BDL | BDL | BDL | 5.7 | BDL | BDL | BDL | BDL | BDL | BDL |
| Mar-25 | 57.5 | 35.9 | BDL | BDL | BDL | 5.9 | BDL | BDL | BDL | BDL | BDL | BDL |
| AVERAGE | 53.8 | 32.7 | BDL | BDL | BDL | 5.8 | BDL | BDL | BDL | BDL | BDL | BDL |
| NAAQ Standard | 100.00 (24 hours) | 60.00 (24 hours) | 80.00 (1hours) | 80.00 (1 hour) | 4.0 (1hour) | 180 (1hour) | 400 (24 hours) | 5 (Annual) | 1 (Annual) | 1 (24 hours) | 6 (Annual) | 20 (Annual) |
| Method of Testing | IS: 5182, PART-4, 23 | IS: 5182, PART-4, 23 | IS: 5182, PART-2 | IS: 5182, PART-6 | IS: 5182, PART-10 | CPCB Guidelines | IS: 5182, PART-22 | CPCB Guidelines | IS: 5182, PART-12 | IS: 5182, PART-12 | IS: 5182, PART-22 | IS: 5182, PART-22 |

Reviewed By: 



Approved By: 



Report. No: Envlab/25-26/TR-02732

Date: 07.04.2025

SIX MONTHLY COMPLIANCE REPORT (OCT-24 TO MAR-25) AMBIENT AIR QUALITY (BUFFER ZONE)

Name & Address of the Client : Saruabil Chromite Block,
M/s TATA Steel Limited, Kalarangiatta, Dist. Jajpur, Odisha

| AAQBZ3: Saruabil Village | | | | | | | | | | | | |
|--------------------------|---------------------------|----------------------------|--------------------------------------|--------------------------------------|-------------------------|-------------------------------------|-------------------------|--------------------------------------|------------------------------|---|------------------------------|-----------------------------|
| Monthly Average | PM10 µg/m ³ | PM2.5 µg/m ³ | SO ₂ µg/m ³ | NO _x µg/m ³ | CO mg/m ³ | O ₃ µg/m ³ | Pb µg/m ³ | NH ₃ µg/m ³ | Benzene µg/m ³ | Benzo(a) Pyrene ng/m ³ | Arsenic ng/m ³ | Nickel ng/m ³ |
| Dec-24 | 52.1 | 30.1 | BDL | BDL | BDL | 5.1 | BDL | BDL | BDL | BDL | BDL | BDL |
| Mar-25 | 60.2 | 34.8 | BDL | BDL | BDL | 6.2 | BDL | BDL | BDL | BDL | BDL | BDL |
| AVERAGE | 56.2 | 32.5 | BDL | BDL | BDL | 5.7 | BDL | BDL | BDL | BDL | BDL | BDL |
| NAAQ Standard | 100.00 (24 hours) | 60.00 (24 hours) | 80.00 (1hours) | 80.00 (1 hour) | 4.0 (1hour) | 180 (1hour) | 400 (24 hours) | 5 (Annual) | 1 (Annual) | 1 (24 hours) | 6 (Annual) | 20 (Annual) |
| Method of Testing | IS: 5182, PART-4, 23 | IS: 5182, PART-4, 23 | IS: 5182, PART-2 | IS: 5182, PART-6 | IS: 5182, PART-10 | CPCB Guidelines | IS: 5182, PART-22 | CPCB Guidelines | IS: 5182, PART-12 | IS: 5182, PART-12 | IS: 5182, PART-22 | IS: 5182, PART-22 |

AAQBZ4: Talangi Village

| Monthly Average | PM10 µg/m ³ | PM2.5 µg/m ³ | SO ₂ µg/m ³ | NO _x µg/m ³ | CO mg/m ³ | O ₃ µg/m ³ | Pb µg/m ³ | NH ₃ µg/m ³ | Benzene µg/m ³ | Benzo(a) Pyrene ng/m ³ | Arsenic ng/m ³ | Nickel ng/m ³ |
|-------------------|---------------------------|----------------------------|--------------------------------------|--------------------------------------|-------------------------|-------------------------------------|-------------------------|--------------------------------------|------------------------------|---|------------------------------|-----------------------------|
| Dec-24 | 48.4 | 27.8 | BDL | BDL | BDL | 5.6 | BDL | BDL | BDL | BDL | BDL | BDL |
| Mar-25 | 58.6 | 35.2 | BDL | BDL | BDL | 5.7 | BDL | BDL | BDL | BDL | BDL | BDL |
| AVERAGE | 53.5 | 31.5 | BDL | BDL | BDL | 5.7 | BDL | BDL | BDL | BDL | BDL | BDL |
| NAAQ Standard | 100.00 (24 hours) | 60.00 (24 hours) | 80.00 (1hours) | 80.00 (1 hour) | 4.0 (1hour) | 180 (1hour) | 400 (24 hours) | 5 (Annual) | 1 (Annual) | 1 (24 hours) | 6 (Annual) | 20 (Annual) |
| Method of Testing | IS: 5182, PART-4, 23 | IS: 5182, PART-4, 23 | IS: 5182, PART-2 | IS: 5182, PART-6 | IS: 5182, PART-10 | CPCB Guidelines | IS: 5182, PART-22 | CPCB Guidelines | IS: 5182, PART-12 | IS: 5182, PART-12 | IS: 5182, PART-22 | IS: 5182, PART-22 |

Reviewed By:



Approved By:



Report. No: Envlab/25-26/TR-02733

Date: 07.04.2025

SIX MONTHLY COMPLIANCE REPORT (OCT-24 TO MAR-25) GROUND WATER QUALITY ANALYSIS REPORT

Name & Address of the Client : Saruabil Chromite Block,
M/s TATA Steel Limited, Kalarangiatta, Dist. Jajpur, Odisha

| GW1: Damsala Nallah Site | | | | | | | | | |
|--------------------------|---------------------------------------|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sl. No | Parameter | Unit of Measurement | Oct-24 | Nov-24 | Dec-24 | Jan-25 | Feb-25 | Mar-25 | AVERAGE |
| 01 | Colour | Hazen | CL | CL | CL | CL | CL | CL | CL |
| 02 | Odour | -- | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 03 | Taste | mg/l | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 04 | Turbidity | NTU | <1 | <1 | <1 | <1 | 1.2 | 1.1 | 1.2 |
| 05 | Total Dissolved Solids as TDS | mg/l | 194 | 185 | 172 | 162 | 154 | 143 | 168 |
| 06 | pH at 25°C | -- | 7.26 | 7.31 | 7.31 | 7.33 | 7.32 | 7.26 | 7.30 |
| 07 | Aluminium (as Al) | mg/l | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| 08 | Ammonia (as total ammonia-N) | mg/l | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| 09 | Anionic Detergents | mg/l | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| 10 | Calcium as Ca | mg/l | 32.1 | 31.8 | 32.3 | 33.6 | 34.6 | 35.2 | 33.3 |
| 11 | Chloride as Cl | mg/l | 27.9 | 29.8 | 29.5 | 28.4 | 26.9 | 28.6 | 28.5 |
| 12 | Dissolved Oxygen | mg/l | 4.8 | 4.6 | 4.4 | 4.2 | 4.4 | 4.6 | 4.5 |
| 13 | Fluoride as F | mg/l | 0.24 | 0.23 | 0.22 | 0.23 | 0.21 | 0.18 | 0.22 |
| 14 | Free Residual Chlorine | mg/l | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| 15 | Magnesium as Mg | mg/l | 3.57 | 4.31 | 4.00 | 2.15 | 2.05 | 1.06 | 2.86 |
| 16 | Manganese as Mn | mg/l | 0.24 | 0.22 | 0.23 | 0.22 | 0.19 | 0.19 | 0.22 |
| 17 | Sulphate as SO ₄ | mg/l | 6.6 | 6.0 | 6.3 | 6.1 | 5.8 | 6.3 | 6.2 |
| 18 | Total alkalinity as CaCO ₃ | mg/l | 40.2 | 38.6 | 38.6 | 40.1 | 38.6 | 58.5 | 42.4 |
| 19 | Total Hardness | mg/l | 94.6 | 96.9 | 96.9 | 92.5 | 94.6 | 92 | 94.6 |
| 20 | Mercury as Hg | mg/l | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 |
| 21 | Nickel (as Ni) | mg/l | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| 22 | Pesticide | mg/l | Absent | Absent | Absent | Absent | Absent | Absent | Absent |
| 23 | Total Chromium as Cr | µg/l | 0.013 | 0.012 | 0.012 | 0.011 | 0.012 | 0.013 | 0.012 |
| 24 | Hexa Chromium as Cr +6 | mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| 25 | Fecal Coliform | mg/l | <1.1 | <1.1 | <1.1 | <1.1 | <1.1 | <1.1 | <1.1 |

B. Babu
Reviewed By:



P. Patil
Approved By:



Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Report. No: Envlab/4-25/TR-02734

Date: 07.04.2025

GW2: Piezo hole at DB Plot

| Sl. No | Parameter | Unit of Measurement | Oct-24 | Nov-24 | Dec-24 | Jan-25 | Feb-25 | Mar-25 | AVERAGE |
|--------|-------------------------------|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 01 | Colour | Hazen | CL | CL | CL | CL | CL | CL | CL |
| 02 | Odour | -- | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 03 | Taste | mg/l | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 04 | Turbidity | NTU | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 05 | Total Dissolved Solids as TDS | mg/l | 188 | 173 | 166 | 156 | 148 | 138 | 162 |
| 06 | pH at 250C | -- | 7.19 | 7.2 | 7.28 | 7.24 | 7.25 | 7.31 | 7.25 |
| 07 | Aluminium (as Al) | mg/l | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| 08 | Ammonia (as total ammonia-N) | mg/l | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| 09 | Anionic Detergents | mg/l | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| 10 | Calcium as Ca | mg/l | 30.9 | 30.5 | 31.4 | 31.8 | 31.3 | 31.9 | 31.3 |
| 11 | Chloride as Cl | mg/l | 31.2 | 30.6 | 30.7 | 30.3 | 30.1 | 30.7 | 30.6 |
| 12 | Dissolved Oxygen | mg/l | 5 | 4.5 | 4.6 | 4.4 | 4.2 | 4.8 | 4.6 |
| 13 | Fluoride as F | mg/l | 0.22 | 0.21 | 0.25 | 0.25 | 0.24 | 0.23 | 0.23 |
| 14 | Free Residual Chlorine | mg/l | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| 15 | Magnesium as Mg | mg/l | 2.71 | 2.01 | 1.46 | 2.24 | 1.11 | 0.16 | 1.62 |
| 16 | Manganese as Mn | mg/l | 0.31 | 0.28 | 0.27 | 0.25 | 0.23 | 0.21 | 0.26 |
| 17 | Sulphate as SO4 | mg/l | 5.9 | 5.1 | 5.4 | 5.8 | 6.1 | 5.4 | 5.6 |
| 18 | Total alkalinity as CaCO3 | mg/l | 42.5 | 40.7 | 40.7 | 42.1 | 44.2 | 64.9 | 45.9 |
| 19 | Total Hardness | mg/l | 88.1 | 84.2 | 84.2 | 88.4 | 82.5 | 86.7 | 85.7 |
| 20 | Mercury as Hg | mg/l | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 |
| 21 | Nickel (as Ni) | mg/l | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| 22 | Pesticide | mg/l | Absent | Absent | Absent | Absent | Absent | Absent | Absent |
| 23 | Total Chromium as Cr | µg/l | 0.015 | 0.014 | 0.014 | 0.013 | 0.011 | 0.015 | 0.014 |
| 24 | Hexa Chromium as Cr +6 | mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| 25 | Fecal Coliform | mg/l | <1.1 | <1.1 | <1.1 | <1.1 | <1.1 | <1.1 | <1.1 |

Reviewed By:



Approved By:



Report. No: Envlab/25-26/TR-02737

Date: 07.04.2025

SIX MONTHLY COMPLIANCE REPORT (OCT-24 TO MAR-25) SURFACE WATER QUALITY ANALYSIS REPORT

Name & Address of the Client : Saruabil Chromite Block,
M/s TATA Steel Limited, Kalarangiatta, Dist. Jajpur, Odisha

| SW1: Damsala Nallah Upstream Water | | | | | | | | | |
|------------------------------------|--|------------|--------|--------|--------|--------|--------|--------|---------|
| Sl. No | Parameter | Unit | Oct-24 | Nov-24 | Dec-24 | Jan-25 | Feb-25 | Mar-25 | AVERAGE |
| 1 | Colour (max) | Hazen | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| 2 | pH Value | -- | 7.35 | 7.3 | 7.26 | 7.29 | 7.31 | 7.16 | 7.28 |
| 4 | Suspended solids | mg/l | 138 | 129 | 126 | 128 | 130 | 112 | 127 |
| 5 | Dissolved Oxygen (minimum) | mg/l | 5.2 | 5 | 5.2 | 5 | 4.6 | 4.4 | 4.90 |
| 6 | Turbidity | NTU | 14.9 | 11.6 | 10.9 | 10.1 | 10.8 | 9.6 | 11.32 |
| 7 | Chloride (max) | mg/l | 33.2 | 30.3 | 30.7 | 30.3 | 28.9 | 29.6 | 30.5 |
| 8 | Total Dissolved Solids | mg/l | 319 | 308 | 308 | 298 | 284 | 267 | 297 |
| 9 | BOD (3) days at 270C (max) | mg/l | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 10 | Arsenic as As | mg/l | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 |
| 11 | Lead as Pb(max) | mg/l | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| 12 | Cadmium as Cd (max) | mg/l | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| 13 | Hexa Chromium as Cr +6 | mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| 14 | Copper as Cu (max) | mg/l | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| 15 | Zinc as Zn(max) | mg/l | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| 16 | Selenium as Se (max) | mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| 17 | Cyanide as CN (max) | mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| 18 | Fluoride as F (max) | mg/l | 0.22 | 0.22 | 0.21 | 0.2 | 0.22 | 0.21 | 0.21 |
| 19 | Sulphates (SO ₄) (max) | mg/l | 0.32 | 0.29 | 0.3 | 0.29 | 0.31 | 0.33 | 0.31 |
| 20 | Phenolic Compounds as C ₆ H ₅ OH (max) | mg/l | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| 21 | Iron as Fe (max) | mg/l | 0.22 | 0.21 | 0.22 | 0.23 | 0.22 | 0.27 | 0.23 |
| 22 | Nitrate as NO ₃ , (max) | mg/l | 4.1 | 4 | 4.2 | 4 | 4.1 | 4.3 | 4.12 |
| 23 | Anionic Detergents (max) | mg/l | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| 24 | Total Coli form | MPN/100 ml | 560 | 520 | 480 | 440 | 420 | 380 | 467 |


Reviewed By: 


Approved By: 



Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Report. No: Envlab/25-26/TR-02738

Date: 07.04.2025

SW2: Damsala Nallah Downstream Water

| Sl. No | Parameter | Unit | Oct-24 | Nov-24 | Dec-24 | Jan-25 | Feb-25 | Mar-25 | AVERAGE |
|--------|------------------------------------|-------------|--------|--------|--------|--------|--------|--------|---------|
| 1 | Colour (max) | Hazen | 10 | <10 | <10 | <10 | <10 | <15 | <10 |
| 2 | pH Value | -- | 7.31 | 7.24 | 7.21 | 7.22 | 7.24 | 7.28 | 7.25 |
| 3 | Suspended solids | mg/l | 142 | 138 | 135 | 132 | 136 | 128 | 135 |
| 4 | Dissolved Oxygen (minimum) | mg/l | 5.6 | 5.4 | 5.4 | 5.2 | 4.4 | 4.8 | 5.13 |
| 5 | Turbidity | NTU | 17.2 | 14.2 | 13.4 | 11.9 | 11.2 | 10.4 | 13.05 |
| 6 | Chloride (max) | mg/l | 34.6 | 32.7 | 31.9 | 31.7 | 32.5 | 30.8 | 32.37 |
| 7 | Total Dissolved Solids | mg/l | 324 | 315 | 315 | 310 | 302 | 295 | 310 |
| 8 | BOD (3) days at 270C (max) | mg/l | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 9 | Arsenic as As | mg/l | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 |
| 10 | Lead as Pb(max) | mg/l | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| 11 | Cadmium as Cd (max) | mg/l | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| 12 | Hexa Chromium as Cr +6 | mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| 13 | Copper as Cu (max) | mg/l | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| 14 | Zinc as Zn(max) | mg/l | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| 15 | Selenium as Se (max) | mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| 16 | Cyanide as CN (max) | mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| 17 | Fluoride as F (max) | mg/l | 0.24 | 0.25 | 0.24 | 0.23 | 0.25 | 0.26 | 0.25 |
| 18 | Sulphates (SO4) (max) | mg/l | 0.4 | 0.37 | 0.35 | 0.31 | 0.35 | 0.38 | 0.36 |
| 19 | Phenolic Compounds as C6H5OH (max) | mg/l | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| 20 | Iron as Fe (max) | mg/l | 0.26 | 0.24 | 0.25 | 0.27 | 0.25 | 0.31 | 0.26 |
| 21 | Nitrate as NO3, (max) | mg/l | 4.8 | 4.3 | 4.1 | 4.3 | 4.5 | 4.8 | 4.47 |
| 22 | Anionic Detergents (max) | mg/l | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| 23 | Fecal Coli form | MPN/ 100 ml | 620 | 580 | 540 | 520 | 480 | 540 | 547 |


Reviewed By: 


Approved By: 



Report. No: Envlab/25-26/TR-02739

Date: 07.04.2025

SIX MONTHLY COMPLIANCE REPORT (OCT-24 TO MAR-25)

DRINKING WATER QUALITY ANALYSIS REPORT

Name & Address of the Client : Saruabil Chromite Block,
M/s TATA Steel Limited, Kalarangiatta, Dist. Jajpur, Odisha

DW1- Piezo hole of COB Plot

| Sl. No | Parameter | Unit | Oct-24 | Nov-24 | Dec-24 | Jan-25 | Feb-25 | Mar-25 | Average |
|--------|---------------------------------------|-------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1 | Colour | Hazen | CL | CL | CL | CL | CL | CL | CL |
| 2 | Odour | -- | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 3 | Taste | mg/l | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity | NTU | 1.1 | 1.2 | 1.2 | 1.1 | <1.0 | 1.1 | 1.1 |
| 5 | Total Dissolved Solids as TDS | mg/l | 192 | 185 | 185 | 178 | 162 | 162 | 177 |
| 6 | pH at 25°C | -- | 7.32 | 7.29 | 7.32 | 7.35 | 7.38 | 7.28 | 7.32 |
| 7 | Aluminium (as Al) | mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| 8 | Ammonia (as total ammonia-N) | mg/l | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| 9 | Anionic Detergents | mg/l | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| 10 | Calcium as Ca | mg/l | 31.9 | 32.2 | 32.2 | 31.9 | 32.8 | 33.9 | 32.5 |
| 11 | Chloride as Cl | mg/l | 27.6 | 28.6 | 28.5 | 29.4 | 28.6 | 29.4 | 28.7 |
| 12 | Dissolved Oxygen | mg/l | 5.5 | 5.4 | 5 | 4.6 | 4.4 | 4.6 | 4.9 |
| 13 | Fluoride as F | mg/l | 0.23 | 0.24 | 0.23 | 0.22 | 0.24 | 0.25 | 0.24 |
| 14 | Free Residual Chlorine | mg/l | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| 15 | Iron as Fe | mg/l | 0.24 | 0.22 | 0.24 | 0.26 | 0.25 | 0.3 | 0.25 |
| 16 | Magnesium as Mg | mg/l | 13.8 | 14.7 | 11.7 | 11.3 | 9.8 | 7.34 | 11.4 |
| 17 | Manganese as Mn | mg/l | 0.025 | 0.026 | 0.021 | 0.024 | 0.023 | 0.023 | 0.024 |
| 18 | Sulphate as SO ₄ | mg/l | 10.2 | 10.7 | 11.2 | 10.9 | 10.2 | 10.4 | 10.6 |
| 19 | Total Alkalinity as CaCO ₃ | mg/l | 68 | 66 | 70 | 68 | 72 | 84 | 71.3 |
| 20 | Total Hardness | mg/l | 136.2 | 140.5 | 128.4 | 126 | 122 | 114.6 | 128.0 |
| 21 | Mercury as Hg | mg/l | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 |
| 22 | Nickel (as Ni) | mg/l | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| 23 | Pesticide | mg/l | Absent | Absent | Absent | Absent | Absent | Absent | Absent |
| 24 | Total Chromium as Cr | mg/l | 0.014 | 0.013 | 0.012 | 0.012 | 0.013 | 0.014 | 0.013 |
| 25 | Hexa Chromium as Cr +6 | mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| 26 | fecal Coliform | mg/l | <1.8 | <1.8 | <1.8 | <1.8 | <1.8 | <1.8 | <1.8 |

Reviewed By: 



Approved By: 





Report. No: Envlab/25-26/TR-02740

Date: 07.04.2025

SIX MONTHLY COMPLIANCE REPORT (OCT-24 TO MAR-25)

DRINKING WATER QUALITY ANALYSIS REPORT

Name & Address of the Client : Saruabil Chromite Block,
M/s TATA Steel Limited, Kalarangiatta, Dist. Jajpur, Odisha

| DW2- Tubewell at Saruabil Village | | | | | |
|-----------------------------------|---------------------------------------|------------|-----------|-----------|-----------|
| Sl. No | Parameter | Unit | Dec-24 | Mar-25 | AVERAGE |
| 1 | Colour | Hazen | CL | CL | CL |
| 2 | Odour | -- | Agreeable | Agreeable | Agreeable |
| 3 | Taste | mg/l | Agreeable | Agreeable | Agreeable |
| 4 | Turbidity | NTU | 1.1 | <1.0 | 1.1 |
| 5 | Total Dissolved Solids as TDS | mg/l | 162 | 178 | 170 |
| 6 | pH at 25°C | -- | 7.24 | 7.21 | 7.23 |
| 7 | Aluminium (as Al) | mg/l | <0.01 | <0.01 | <0.01 |
| 8 | Ammonia (as total ammonia-N) | mg/l | <0.1 | <0.1 | <0.1 |
| 9 | Anionic Detergents | mg/l | <0.2 | <0.2 | <0.2 |
| 10 | Calcium as Ca | mg/l | 31.5 | 32.5 | 32.0 |
| 11 | Chloride as Cl | mg/l | 26.4 | 30.1 | 28.3 |
| 12 | Dissolve Oxygen | mg/l | 5.2 | 4.4 | 4.8 |
| 13 | Fluoride as F | mg/l | 0.19 | 0.21 | 0.20 |
| 14 | Free Residual Chlorine | mg/l | <0.1 | <0.1 | <0.1 |
| 15 | Iron as Fe | mg/l | 0.26 | 0.28 | 0.27 |
| 16 | Magnesium as Mg | mg/l | 10.7 | 9.69 | 10.2 |
| 17 | Manganese as Mn | mg/l | 0.023 | 0.028 | 0.026 |
| 18 | Sulphate as SO ₄ | mg/l | 10.4 | 9.6 | 10.0 |
| 19 | Total alkalinity as CaCO ₃ | mg/l | 62 | 82 | 72.0 |
| 20 | Total Hardness | mg/l | 122.6 | 120.8 | 122 |
| 21 | Mercury as Hg | mg/l | <0.004 | <0.004 | <0.004 |
| 22 | Nickel (as Ni) | mg/l | <0.1 | <0.1 | <0.1 |
| 23 | Pesticide | µg/l | Absent | Absent | Absent |
| 24 | Total Chromium as Cr | mg/l | 0.014 | 0.016 | 0.015 |
| 25 | Hexa Chromium as Cr +6 | mg/l | <0.02 | <0.02 | <0.02 |
| 26 | Fecal Coli form | MPN/100 ml | <1.8 | <1.8 | <1.8 |

Reviewed By: 



Approved By: 





Report. No: Envlab/25-26/TR-02741

Date: 07.04.2025

SIX MONTHLY COMPLIANCE REPORT (OCT-24 TO MAR-25)

WASTE WATER QUALITY ANALYSIS REPORT

Name & Address of the Client : Saruabil Chromite Block,
M/s TATA Steel Limited, Kalarangiatta, Dist. Jajpur, Odisha

WW-1: ETP Inlet

| Sl No | Parameter | Unit | Oct-24 | Nov-24 | Dec-24 | Jan-25 | Feb-25 | Mar-25 | AVERAGE |
|-------|---|-------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1 | pH at 250C | - | 7.57 | 7.66 | 7.79 | 8.07 | 8.19 | 8.23 | 7.92 |
| 2 | Colour | Hazen | <15 | <15 | <15 | <15 | <15 | <15 | <15 |
| 3 | Odour | -- | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Temperature | °C | 24.6 | 23.8 | 22.5 | 21.6 | 25.3 | 26.9 | 24.12 |
| 5 | Suspended Solids | mg/l | 35.64 | 13.05 | 12.32 | 12.46 | 13.02 | 14.2 | 16.78 |
| 6 | Total Residual Chlorine | mg/l | 0.13 | 0.12 | 0.13 | 0.12 | 0.14 | 0.16 | 0.13 |
| 7 | Oil & Grease | mg/l | 3.5 | 3.7 | 4.2 | 4.5 | 4.8 | 5.1 | 4.30 |
| 8 | Biochemical Oxygen Demand as BOD at 270C For 3 Days | mg/l | 32 | 34 | 36 | 34 | 36 | 40 | 35.33 |
| 9 | Chemical Oxygen Demand as COD | mg/l | 112 | 108 | 118 | 128 | 132 | 138 | 123 |
| 10 | Amm. Nitrogen (as N) | mg/l | 1.19 | 1.21 | 1.25 | 1.21 | 1.24 | 1.25 | 1.23 |
| 11 | Total Kjeldhal Nitrogen | mg/l | 4.6 | 4.5 | 4.3 | 4.1 | 4.4 | 4.2 | 4.35 |
| 12 | Free Ammonia | mg/l | 0.02 | 0.021 | 0.023 | 0.021 | 0.023 | 0.025 | 0.022 |
| 13 | Nitrate as NO3 | mg/l | 1.24 | 1.22 | 1.24 | 1.23 | 1.25 | 1.26 | 1.24 |
| 14 | Diss. Phosphate (as P) | mg/l | 0.53 | 0.55 | 0.53 | 0.52 | 0.55 | 0.56 | 0.54 |
| 15 | Fluoride | mg/l | 0.26 | 0.28 | 0.31 | 0.29 | 0.31 | 0.33 | 0.30 |
| 16 | Sulphide | mg/l | ND | ND | ND | ND | ND | ND | ND |
| 17 | Phenolic Compound | mg/l | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| 18 | Cyanide (as CN) | mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| 19 | Hexavalent Chromium as Cr +6 | mg/l | 0.64 | 0.57 | 0.56 | 0.58 | 0.56 | 0.58 | 0.58 |
| 20 | Mercury (as Hg) | mg/l | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 |
| 21 | Arsenic | mg/l | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 |
| 22 | Lead (as Pb) | mg/l | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| 23 | Cadmium (as Cd) | mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| 24 | Total Chromium (as Cr) | mg/l | 0.75 | 0.71 | 0.78 | 0.69 | 0.67 | 0.62 | 0.70 |
| 25 | Copper (as Cu) | mg/l | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| 26 | Zinc (as Zn) | mg/l | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| 27 | Selenium (as Se) | mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| 28 | Nickel (as Ni) | mg/l | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| 29 | Manganese (as Mn) | mg/l | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 |
| 30 | Iron (as Fe) | mg/l | 0.43 | 0.44 | 0.46 | 0.48 | 0.46 | 0.42 | 0.45 |
| 31 | Vanadium (as V) | mg/l | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| 32 | Bio-assay Test | % | 90% | 90% | 91% | 92% | 91% | 92% | 91% |
| 33 | Particle Size of Suspended Solids | µ | < 850 | < 850 | < 850 | < 850 | < 850 | < 850 | < 850 |
| 34 | Pesticide | mg/l | Absent | Absent | Absent | Absent | Absent | Absent | Absent |

Reviewed By: 


Approved By: 




Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Report. No: Envlab/25-26/TR-02742

Date: 07.04.2025

| WW-2: ETP Outlet | | | | | | | | | |
|------------------|---|-------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Sl No | Parameter | Unit | Oct-24 | Nov-24 | Dec-24 | Jan-25 | Feb-25 | Mar-25 | AVERAGE |
| 1 | pH at 250C | - | 7.32 | 7.48 | 7.33 | 7.31 | 7.38 | 7.78 | 7.43 |
| 2 | Colour | Hazen | <5 | <5 | <5 | <5 | <5 | <5 | <15 |
| 3 | Odour | -- | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable | Agreeable |
| 4 | Temperature | °C | 25.8 | 24.1 | 23.7 | 22.8 | 26.1 | 27.4 | 24.98 |
| 5 | Suspended Solids | mg/l | 28.95 | 29.32 | 29.93 | 32.37 | 34.1 | 34 | 31.45 |
| 6 | Total Residual Chlorine | mg/l | 0.11 | 0.1 | 0.11 | 0.11 | 0.12 | 0.14 | 0.12 |
| 7 | Oil & Grease | mg/l | 2.6 | 3 | 3.8 | 3.9 | 3.5 | 4.6 | 3.57 |
| 8 | Biochemical Oxygen Demand as BOD at 270C For 3 Days | mg/l | <1 | <1 | <1 | <1 | <1 | <1 | <1 |
| 9 | Chemical Oxygen Demand as COD | mg/l | <2 | <2 | <2 | <2 | <2 | <2 | <2 |
| 10 | Amm. Nitrogen (as N) | mg/l | 0.52 | 0.49 | 0.52 | 0.49 | 0.51 | 0.53 | 0.51 |
| 11 | Total Kjeldhal Nitrogen | mg/l | 2.8 | 2.7 | 3.1 | 2.9 | 3 | 3.1 | 2.93 |
| 12 | Free Ammonia | mg/l | 0.018 | 0.016 | 0.019 | 0.023 | 0.021 | 0.022 | 0.020 |
| 13 | Nitrate as NO3 | mg/l | 0.12 | 0.13 | 0.15 | 1.18 | 1.13 | 1.18 | 0.65 |
| 14 | Diss. Phosphate (as P) | mg/l | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| 15 | Fluoride | mg/l | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| 16 | Sulphide | mg/l | ND | ND | ND | ND | ND | ND | ND |
| 17 | Phenolic Compound | mg/l | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 |
| 18 | Cyanide (as CN) | mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| 19 | Hexavalent Chromium as Cr +6 | mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| 20 | Mercury (as Hg) | mg/l | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 |
| 21 | Arsenic | mg/l | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 |
| 22 | Lead (as Pb) | mg/l | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| 23 | Cadmium (as Cd) | mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| 24 | Total Chromium (as Cr) | mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| 25 | Copper (as Cu) | mg/l | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| 26 | Zinc (as Zn) | mg/l | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 | <0.03 |
| 27 | Selenium (as Se) | mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| 28 | Nickel (as Ni) | mg/l | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 |
| 29 | Manganese (as Mn) | mg/l | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 |
| 30 | Iron (as Fe) | mg/l | 0.39 | 0.35 | 0.39 | 0.41 | 0.42 | 0.38 | 0.39 |
| 31 | Vanadium (as V) | mg/l | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| 32 | Bio-assay Test | % | 92% | 91% | 90% | 90% | 89% | 91% | 91% |
| 33 | Particle Size of Suspended Solids | μ | < 850 | < 850 | < 850 | < 850 | < 850 | < 850 | < 850 |
| 34 | Pesticide | mg/l | Absent | Absent | Absent | Absent | Absent | Absent | Absent |

B. Singh

Reviewed By:



P. Patil

Approved By:

Report. No: Envlab/25-26/TR-02743

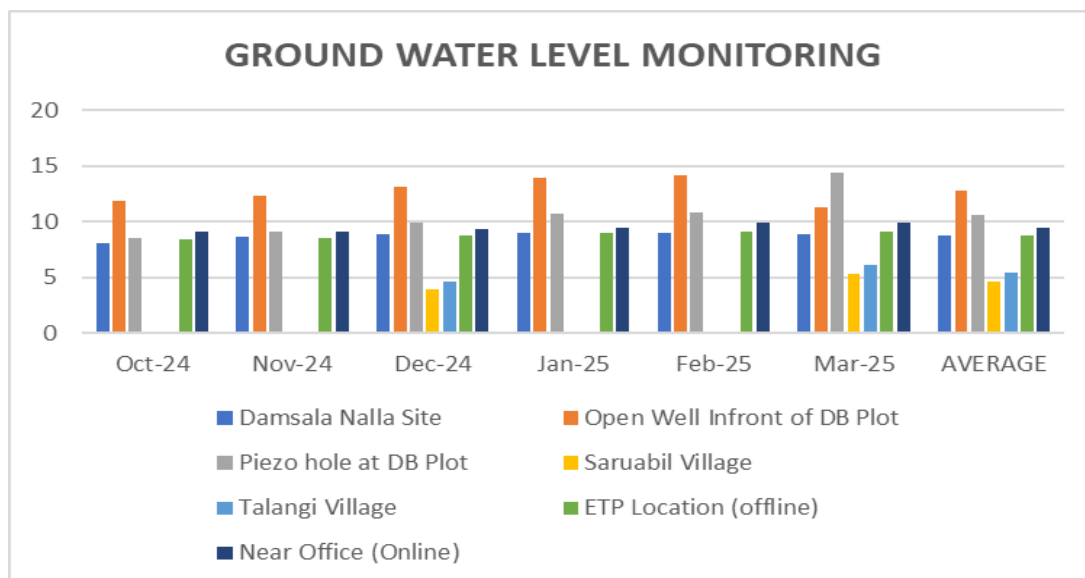
Date: 07.04.2025

SIX MONTHLY COMPLIANCE REPORT (OCT-24 TO MAR-25)

GROUND WATER LEVEL MONITORING REPORT

Name & Address of the Client : Saruabil Chromite Block,
M/s TATA Steel Limited, Kalarangiatta, Dist. Jajpur, Odisha

| Sl. No | Parameter | Oct-24 | Nov-24 | Dec-24 | Jan-25 | Feb-25 | Mar-25 | AVERAGE |
|--------|------------------------------|--------|--------|--------|--------|--------|--------|---------|
| 1 | Damsala Nalla Site | 8.04 | 8.65 | 8.89 | 9.04 | 8.98 | 8.86 | 8.74 |
| 2 | Open Well Infront of DB Plot | 11.82 | 12.28 | 13.18 | 13.92 | 14.11 | 11.25 | 12.76 |
| 3 | Piezo hole at DB Plot | 8.57 | 9.11 | 9.92 | 10.75 | 10.82 | 14.38 | 10.59 |
| 4 | Saruabil Village | NA | NA | 3.92 | NA | NA | 5.32 | 4.62 |
| 5 | Talangi Village | NA | NA | 4.65 | NA | NA | 6.13 | 5.39 |
| 6 | ETP Location (offline) | 8.42 | 8.55 | 8.81 | 8.96 | 9.08 | 9.06 | 8.81 |
| 7 | Near Office (Online) | 9.11 | 9.16 | 9.35 | 9.47 | 9.92 | 9.87 | 9.48 |



Reviewed By:



Approved By:





Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Report. No: Envlab/25-26/TR-02744

Date: 07.04.2025

SIX MONTHLY COMPLIANCE REPORT (OCT-24 TO MAR-25)

PERSONAL DUST LEVEL MONITORING

Name & Address of the Client : Saruabil Chromite Block,
M/s TATA Steel Limited, Kalarangiatta, Dist. Jajpur, Odisha

| Personal Respirable Dust (mg/m ³) | | | | | | | | |
|---|---------------------|--------|--------|--------|--------|--------|--------|---------|
| Sl. No | Monitoring Location | Oct-24 | Nov-24 | Dec-24 | Jan-25 | Feb-25 | Mar-25 | AVERAGE |
| 1 | MITHUN BEHERA | 0.52 | 0.56 | 0.58 | 0.57 | 0.59 | - | 0.56 |
| 2 | PHILIPKUMAR SAHOO | 0.49 | 0.53 | 0.55 | 0.53 | 0.55 | - | 0.53 |
| 3 | MAHAMMAD AZAAD | 0.51 | 0.55 | 0.57 | 0.59 | 0.61 | - | 0.57 |
| 4 | SURSING DAS | 0.53 | 0.51 | 0.53 | 0.55 | 0.57 | - | 0.54 |
| 5 | PRAKASH CH. MAHANTA | 0.50 | 0.53 | 0.56 | 0.56 | 0.58 | - | 0.55 |
| 6 | NIHAR RANJAN HATI | - | - | - | - | - | 0.63 | 0.63 |
| 7 | BAMIYA MUNDA | - | - | - | - | - | 0.58 | 0.58 |
| 8 | TRINATH GANANAYAK | - | - | - | - | - | 0.64 | 0.64 |
| 9 | BIREN KISKU | - | - | - | - | - | 0.61 | 0.61 |
| 10 | DAMU BANARA | - | - | - | - | - | 0.59 | 0.59 |

| Respirable free Silica (%) | | | | | | | | |
|----------------------------|---------------------|--------|--------|--------|--------|--------|--------|---------|
| Sl. No | Monitoring Location | Oct-24 | Nov-24 | Dec-24 | Jan-25 | Feb-25 | Mar-25 | AVERAGE |
| 1 | MITHUN BEHERA | 2.2 | 2.4 | 2.7 | 3.0 | 3.1 | - | 2.7 |
| 2 | PHILIPKUMAR SAHOO | 2.1 | 2.2 | 2.4 | 2.6 | 2.9 | - | 2.4 |
| 3 | MAHAMMAD AZAAD | 2.3 | 2.0 | 2.6 | 2.9 | 3.0 | - | 2.6 |
| 4 | SURSING DAS | 2.0 | 2.3 | 2.5 | 2.7 | 3.2 | - | 2.5 |
| 5 | PRAKASH CH. MAHANTA | 2.3 | 2.1 | 2.6 | 3.1 | 3.3 | - | 2.7 |
| 6 | NIHAR RANJAN HATI | - | - | - | - | - | 3.5 | 3.5 |
| 7 | BAMIYA MUNDA | - | - | - | - | - | 3.2 | 3.2 |
| 8 | TRINATH GANANAYAK | - | - | - | - | - | 3.6 | 3.6 |
| 9 | BIREN KISKU | - | - | - | - | - | 3.4 | 3.4 |
| 10 | DAMU BANARA | - | - | - | - | - | 3.1 | 3.1 |

Reviewed By: 


Approved By: 




Report. No: Envlab/25-26/TR-02745

Date: 07.04.2025

SIX MONTHLY COMPLIANCE REPORT (OCT-24 TO MAR-25) PERSONAL NOISE LEVEL MONITORING

Name & Address of the Client : Saruabil Chromite Block,
M/s TATA Steel Limited, Kalarangiatta, Dist. Jajpur, Odisha

| Day Time (6.00am to 10.00pm) Noise Level in dB(A) | | | | | | | |
|---|---------------------|--------|--------|--------|--------|--------|---------|
| Sl. No | Monitoring Location | Oct-24 | Nov-24 | Dec-24 | Jan-25 | Feb-25 | AVERAGE |
| 1 | MITHUN BEHERA | 48.6 | 50.6 | 53.2 | 54.2 | 56.8 | 52.7 |
| 2 | PHILIPKUMAR SAHOO | 50.1 | 53.2 | 56.8 | 58.6 | 60.2 | 55.8 |
| 3 | MAHAMMAD AZAAD | 44.3 | 49.7 | 51.4 | 53.2 | 55.7 | 50.9 |
| 4 | SURSING DAS | 46.8 | 50.1 | 55.6 | 57.4 | 59.3 | 53.8 |
| 5 | PRAKASH CH. MAHANTA | 47.5 | 50.3 | 54.9 | 56.3 | 57.9 | 53.4 |

| Day Time (6.00am to 10.00pm) Noise Level in dB(A) | | |
|---|---------------------|--------|
| Sl. No | Monitoring Location | Mar-25 |
| 1 | Nihar Ranjan Hati | 60.1 |
| 2 | Bamiya Munda | 63.8 |
| 3 | Trinath Gananayak | 59.5 |
| 4 | Biren Kisku | 64.2 |
| 5 | Damu Banara | 62.8 |



Reviewed By:




Approved By:



Visiontek Consultancy Services Pvt. Ltd.

(Committed For Better Environment)

Report. No: Envlab/25-26/TR-02746

Date: 07.04.2025

SIX MONTHLY COMPLIANCE REPORT (OCT-24 TO MAR-25)

AMBIENT NOISE MONITORING REPORT

Name & Address of the Client : Saruabil Chromite Block,
M/s TATA Steel Limited, Kalarangiatta, Dist. Jajpur, Odisha

| Noise Level in dB(A), Day Time | | | | | | | | |
|--------------------------------|------------------|--------|--------|--------|--------|--------|--------|---------|
| SI. No | Location | Oct-24 | Nov-24 | Dec-24 | Jan-25 | Feb-25 | Mar-25 | AVERAGE |
| 1 | Mines office | 50.9 | 49.2 | 51.8 | 46.8 | 47.2 | 50.3 | 49.4 |
| 2 | Colony area | 53.2 | 52.7 | 55.3 | 51.4 | 49.7 | 48.8 | 51.9 |
| 3 | Village Saruabil | 43.7 | 44.5 | 45.7 | 46.5 | 42.5 | 40.6 | 43.9 |
| 4 | Village Balipura | 46.4 | 45.1 | 45.2 | 44.7 | 43.9 | 45.5 | 45.1 |

| Noise Level in dB(A), Night Time | | | | | | | | |
|----------------------------------|------------------|--------|--------|--------|--------|--------|--------|---------|
| SI. No | Location | Oct-24 | Nov-24 | Dec-24 | Jan-25 | Feb-25 | Mar-25 | AVERAGE |
| 1 | Mines office | 46.7 | 46.4 | 47.2 | 38.2 | 41.3 | 45.8 | 44.3 |
| 2 | Colony area | 50.5 | 49.8 | 52.6 | 42.9 | 43.8 | 42.4 | 47.0 |
| 3 | Village Saruabil | 40.2 | 40.2 | 41.6 | 40.3 | 38.2 | 32.2 | 38.8 |
| 4 | Village Balipura | 42.8 | 41.6 | 42.3 | 39.6 | 38.2 | 31.5 | 39.3 |

Reviewed By:



Approved By:



Report. No: Envlab/25-26/TR-02747

Date: 07.04.2025

SIX MONTHLY COMPLIANCE REPORT (OCT-24 TO MAR-25)

SOIL QUALITY ANALYSIS REPORT

Name & Address of the Client : Saruabil Chromite Block,
M/s TATA Steel Limited, Kalarangiatta, Dist. Jajpur, Odisha

| S-1: Dump No-6 (Inside Lease) | | | | | | | | | |
|-------------------------------|-----------------------------|-------|------------------|--------|--------|--------|--------|--------|---------|
| Sl.No | Parameters | Unit | Analysis Results | | | | | | |
| | | | Oct-24 | Nov-24 | Dec-24 | Jan-25 | Feb-25 | Mar-25 | AVERAGE |
| 1 | pH at 250 C | -- | 7.22 | 7.13 | 7.05 | 7.13 | 7.22 | 7.13 | 7.15 |
| 2 | Texture | -- | Clay | Clay | Clay | Clay | Clay | Clay | Clay |
| | Sand | % | 48.6 | 47.5 | 48.9 | 49.6 | 50.6 | 51.3 | 49.4 |
| | Silt | % | 2.2 | 2.6 | 3 | 3.1 | 2.8 | 3 | 2.8 |
| | Clay | % | 53.2 | 55.3 | 56.3 | 55.4 | 54.9 | 53.4 | 54.8 |
| 3 | Bulk Density | gm/cc | 1.29 | 1.24 | 1.18 | 1.17 | 1.23 | 1.13 | 1.2 |
| 4 | Water Holding Capacity | % | 31.8 | 32.3 | 32.3 | 32.6 | 35.6 | 40.6 | 34.2 |
| 5 | Electrical Conductivity | µs/cm | 90.5 | 92.5 | 88.6 | 80.4 | 84.5 | 90.6 | 87.9 |
| 6 | Available Nitrogen | mg/kg | 19.2 | 19.3 | 19.1 | 18.2 | 19.3 | 18.3 | 18.9 |
| 7 | Available Potassium as K | mg/kg | 15.1 | 15.4 | 15.6 | 16.3 | 16.7 | 16.2 | 15.9 |
| 8 | Available Phosphorous as p | mg/kg | 10.9 | 11.2 | 11.5 | 12.3 | 12.9 | 13.6 | 12.1 |
| 9 | Chloride as Cl | mg/kg | 24.5 | 25.3 | 25.2 | 24.6 | 22.3 | 24.3 | 24.4 |
| 10 | Iron as Fe | mg/kg | 31.6 | 32.3 | 30.9 | 30.1 | 31.9 | 32.6 | 31.6 |
| 11 | Copper as Cu | mg/kg | 12.2 | 12.1 | 11.4 | 11.7 | 11.2 | 11.4 | 11.7 |
| 12 | Nickel as Ni | mg/kg | 19.1 | 18.7 | 18.3 | 16.9 | 14.3 | 15.9 | 17.2 |
| 13 | Manganese as Mn | mg/kg | 25.7 | 25.6 | 25.6 | 23.6 | 25.1 | 26.9 | 25.4 |
| 14 | Zinc as Zn | mg/kg | 32.3 | 30.2 | 30.7 | 30.3 | 31.7 | 30.3 | 30.9 |
| 15 | Cobalt as Co | mg/kg | 5.2 | 5.1 | 5.3 | 5.1 | 4.6 | 5.2 | 5.1 |
| 16 | Lead as Pb | mg/kg | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 17 | Cadmium as Cd | mg/kg | 6.1 | 6 | 6.1 | 5.6 | 5.4 | 5.1 | 5.7 |
| 18 | Mercury as Hg | mg/kg | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 19 | Chromium as Cr | mg/kg | 25.6 | 25.3 | 24.6 | 23.8 | 23.2 | 26.5 | 24.8 |
| 20 | Arsenic as As | mg/kg | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 21 | Hexavalent Chromium as Cr+6 | mg/kg | 19.8 | 19.2 | 18.6 | 19.5 | 18.5 | 18.2 | 19.0 |

P. Patil

Reviewed By:



P. Patil

Approved By:



Report. No: Envlab/25-26/TR-02748

Date: 07.04.2025

SIX MONTHLY COMPLIANCE REPORT (OCT-24 TO MAR-25)

SOIL QUALITY ANALYSIS REPORT

Name & Address of the Client : Saruabil Chromite Block,
M/s TATA Steel Limited, Kalarangiatta, Dist. Jajpur, Odisha

| S-2: Near Shiv Temple (Outside Lease) | | | | | | | | | |
|---------------------------------------|-----------------------------|-------|------------------|------------|------------|------------|------------|------------|------------|
| Sl.No | Parameters | Unit | Analysis Results | | | | | | |
| | | | Oct-24 | Nov-24 | Dec-24 | Jan-25 | Feb-25 | Mar-25 | AVERAGE |
| 1 | pH at 250 C | -- | 7.08 | 6.94 | 6.98 | 7.01 | 7.09 | 7.68 | 7.13 |
| 2 | Texture | -- | Sandy Clay | Sandy Clay | Sandy Clay | Sandy Clay | Sandy Clay | Sandy Clay | Sandy Clay |
| | Sand | % | 50.4 | 50.8 | 51.2 | 50.8 | 53.1 | 54.2 | 51.8 |
| | Silt | % | 2.5 | 2.8 | 2.7 | 2.8 | 3.000 | 2.6 | 2.7 |
| | Clay | % | 49.4 | 50.1 | 51.7 | 51.3 | 50.5 | 50.2 | 50.5 |
| 3 | Bulk Density | gm/cc | 1.18 | 1.09 | 1.06 | 1.09 | 1.07 | 1.02 | 1.1 |
| 4 | Water Holding Capacity | % | 32.7 | 33.7 | 31.8 | 31.1 | 32.1 | 38.5 | 33.3 |
| 5 | Electrical Conductivity | µs/cm | 77.3 | 78.4 | 75.2 | 77.6 | 76.2 | 82.4 | 77.9 |
| 6 | Available Nitrogen | mg/kg | 20.5 | 20.2 | 20.4 | 20.4 | 21.4 | 22.4 | 20.9 |
| 7 | Available Potassium as K | mg/kg | 17.5 | 17.3 | 17.1 | 17.2 | 17.5 | 18.1 | 17.5 |
| 8 | Available Phosphorous as p | mg/kg | 10.1 | 10.8 | 10.9 | 11.4 | 11.8 | 12.4 | 11.2 |
| 9 | Chloride as Cl | mg/kg | 21.7 | 22.7 | 23.1 | 22.8 | 21.4 | 22.1 | 22.3 |
| 10 | Iron as Fe | mg/kg | 33.7 | 33.8 | 32.7 | 31.9 | 32.7 | 35.8 | 33.4 |
| 11 | Copper as Cu | mg/kg | 13.9 | 13.5 | 13.1 | 12.8 | 12.5 | 12.3 | 13.0 |
| 12 | Nickel as Ni | mg/kg | 23.2 | 20.2 | 20.1 | 20.7 | 20.8 | 20.7 | 21.0 |
| 13 | Manganese as Mn | mg/kg | 24.6 | 23.4 | 22.7 | 22.4 | 23.9 | 27.4 | 24.1 |
| 14 | Zinc as Zn | mg/kg | 25.2 | 26.8 | 26.9 | 26.8 | 27.8 | 25.1 | 26.4 |
| 15 | Cobalt as Co | mg/kg | 4.9 | 4.8 | 4.7 | 4.5 | 4.2 | 4.6 | 4.6 |
| 16 | Lead as Pb | mg/kg | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 17 | Cadmium as Cd | mg/kg | 6.8 | 6.5 | 6.3 | 6.1 | 5.9 | 5.8 | 6.2 |
| 18 | Mercury as Hg | mg/kg | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 19 | Chromium as Cr | mg/kg | 23.4 | 22.9 | 22.8 | 24.1 | 22.1 | 21.7 | 22.8 |
| 20 | Arsenic as As | mg/kg | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| 21 | Hexavalent Chromium as Cr+6 | mg/kg | 18.1 | 17.6 | 17.4 | 17.2 | 16.9 | 16.8 | 17.3 |

Reviewed By: 



Approved By: 



Report. No: Envlab/25-26/TR-02749

Date: 07.04.2025

SIX MONTHLY COMPLIANCE REPORT (OCT-24 TO MAR-25)

STACK EMISSION ANALYSIS REPORT

Name & Address of the Client : Saruabil Chromite Block,
M/s TATA Steel Limited, Kalarangiatta, Dist. Jajpur, Odisha

Stack-1 (1010 KVA DG)

| Sl. No. | Parameters | Oct-24 | Nov-24 | Dec-24 | Jan-25 | Feb-25 | MAR-25 | AVERAGE |
|---------|--|--------|--------|--------|--------|--------|--------|---------|
| 1 | Stack Temp °C | 190 | 192 | 192 | 185 | 184 | 190 | 188.8 |
| 2 | Stack Velocity m/sec | 19.24 | 19.04 | 19.04 | 18.92 | 17.82 | 16.57 | 18.4 |
| 3 | Particulate Matter (PM), mg/Nm ³ | 56.5 | 58.6 | 58.6 | 57.6 | 54.6 | 58.5 | 57.4 |
| 4 | Oxides of Nitrogen (NOx), ppm | 51.7 | 50.2 | 50.2 | 49.8 | 46.2 | 44.3 | 48.7 |
| 5 | Sulphur Dioxide (SO ₂), ppm | 16.9 | 16.3 | 16.3 | 16.4 | 16.5 | 16.2 | 16.4 |
| 6 | Carbon Monoxide, mg/Nm ³ | 66 | 64 | 64 | 62 | 63 | 65 | 64.0 |
| 7 | Non-Methyl Hydro Carbon as C, mg/Nm ³ | 23.7 | 23.8 | 23.8 | 22.9 | 21.8 | 22.8 | 23.1 |


Reviewed By:


Approved By: