TSL/FAMD/SCM/FY26/3335
Date: 18-11-2025

To,
Dy. Director General,
Integrated Regional Office,
Ministry of Environment and Forest & Climate Change, Eastern Region Office,
A/3, Chandrasekharpur, Bhubaneswar-751023

Subject: Submission of half-yearly compliance report on the stipulated environmental clearance terms and conditions in respect of Sukinda Chromite Block of M/s Tata Steel Limited, for the period from March 2025 to Sept 2025.

Reference:
1) MoEF Letter Ref No: J-11015/96/2011-IA. II (M), dated 06.09.2013
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 the conditions stipulated in environmental clearance vested in favor of Sukinda Chromite Block of M/s Tata Steel Limited vide MoEF Letter Ref No: J-11015/96/2011-IA. II (M), dated 06.09.2013, for the period from March 2025 to Sept 2025 for your kind perusal.

This is in reference to the MoEF&CC's notification vide S.O-5845, dt. 28th Nov 2018, the six-monthly compliance report is being submitted only in soft copy mode, shared with your good office over e-mail @ roez.bsr-mef@nic.in and is being uploaded in Parivesh portal. As per the Vesting order No. 5555 /SM/IV(B)SM-32/2020 dated 29th June'2020 issued by the Office of Nodal Officer, Steel & Mines Department of Government of Odisha, above environmental clearance has been vested to Tata Steel Mining Limited (Merged with Tata Steel Limited from 1st September 2023) for 50years (As per MMDR Act, 2021).

We believe the above submission is in order.

Thanking You.

Yours faithfully,
f: Tata Steel Limited

Agent,
Sukinda Chromite Block

Copy to:
1. The Regional Directorate, Central Pollution Control Board, 'South end Conclave' Block-502, 5th & 6th Floor, 1582, Razidanga, Main Road, Kolkata- 700107
2. Member Secretary, State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakantha Nagar, Bhubaneswar, 751012.

Half Yearly Compliance Report
2025
01 Dec(01 Apr - 30 Sep)

Acknowledgement

Proposal Name	Sukinda Chromite Mines - Renewal of mine lease, expansion of Chrome Ore, Beneficiation Plant and Pyroxenite ore capacities and change of mining and beneficiation technologies of M/s Tata Steel Ltd. located at Sukinda P.O. Kalarangiatta, District Jajpur, Odisha - environmental clearance - regarding.
Name of Entity / Corporate Office	Tata Steel Limited
Village(s)	N/A
District	JAJAPUR

Proposal No.	IA/OR/MIN/114264/2007
Plot / Survey / Khasra No.	N/A
State	ODISHA
MoEF File No.	J-11015/96/2011-IA.II(M)

Category	Non-Coal Mining
Sub-District	N/A
Entity's PAN	*****2803M
Entity name as per PAN	UTSAV KASHYAP

Compliance Reporting Details

Reporting Year 2025

Remarks (if any)

Reporting Period 01 Dec(01 Apr - 30 Sep)

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	332.303	1.331
Forest	247.382	404.669
Others	0	0
Total	579.685	406

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Pyroxenite	Tons per Annum (TPA)	31/03/2026	500000	0	0
2	Chromite Ore (ROM)	Tons per Annum (TPA)	31/03/2026	2400000	2,96,219	0

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	Statutory compliance	No mining activities will be allowed in forest area for which the Forest Clearance is not available.

PPs Submission: Complied The lease of 406.00ha comprised 404.669ha of forest land (73.697 ha as per HAL , 330.972 ha as per SABIK) and 1.331ha of non forest land. The details of Forest Clearance granted by MoEF and CC are; a) Letter no. 8 78/96 FC dated 27.01.1998 over 73.797 ha. and b) Letter No. 8 15/2016 FC dated 18.05.2018 over 330.972 ha. Mining and allied activities were carried within the lease hold area of 406.0ha within which the entire forest land had been diverted as per FC Act,1980.	Date: 14/11/2025

2	Statutory compliance	The project proponent will seek and obtain approval under the FC Act, 1980 for diversion of the entire forest land located within the mining lease within a period of two years from 01.02.2013 i.e. the date of issue of guidelines by FC vide their letter-F. No. 11-362/ 2012-FC, failing which the mining lease area will be reduced to the non-forest area plus the forest area for which the project proponent had been able to obtain the FC at the end of this time period. In the case of reduction in mine lease area, the project proponent will need to get a revised mining plan approved from the competent authority for reduced area and enter into a new mining lease as per reduced lease area. The EC will be construed to be available for the mining lease area as per the revised mining lease deed.

PPs Submission: Complied Renewal Forest Diversion Proposal for entire forest land of 73.697 ha within the Mining Lease area was applied in time. The FDP has been duly recommended by the F and E department, Govt. of Odisha to the Ministry of Environment and Forests, Govt. of India for onward consideration for grant of Forest Clearance. MoEFCC has granted Stage I Forest Clearance with one year working permission vide letter no. 8 78/1996 FC (pt I), dated 03.11.2014. Subsequent to endorsement of the MMDR Amendment Act, 2015, the Govt. of Odisha extended the mining lease from 12.01.2013 to 31.03.2020 for which the supplementary lease deed was executed on 24.08.2015 and registered on 26.08.2015. In accordance with the MoEFCC Circular No. F.No.11 51/2015 FC, dated.01.04.2015, the forest clearance dated 27.01.1998 got extended till 31.03.2020. Further, in accordance with the MoEFCC Circular F.No.8 78/1996 FC, dated.10.03.2015, the forest area as on 25.10.1980 (i.e. Sabik Settlement) 404.669 ha. within the mining lease of 406 ha is now termed as forest land. Hence, fresh forest diversion proposal over an area of 330.972 ha (404.669 ha already diverted area of 73.697 ha) has been applied on 02.11.2015 and with reference to the Agenda No.1 (F.No.8 15/2016 FC) of the Minutes of meeting of Forest Advisory Committee held on 25th April 2017 (published in the web site), the mine was accorded Stage I clearance vide letter F.No 8 15/2016 FC , dated 04.07.2017 over 330.972 ha of forest land as on 25.10.1980 and stage II in 2018. Thus, forest clearance was obtained in due time as per the rule then applicable. However, due to major change in land categorization of HAL and SABIK settlement by state government the identified SABIK forest land was diverted in 2018 as per the guidelines.	Date: 14/11/2025

3	Statutory compliance	Till all the clearance are obtained for the proposed tailing pond/dam the project would only use existing tailing dam.

PPs Submission: Complied No chrome ore beneficiation plant is being operated at present. Thus, there is no tailing pond/dam.		Date: 14/11/2025
4	Statutory compliance	Environmental clearance is subject to obtaining clearance under the Wildlife (Protection) Act, 1972 from the Standing Committee of National Board for Wildlife, as may be applicable to this project.
PPs Submission: Complied There are no wildlife sanctuary, national park, biosphere reserves or other eco sensitive zones nor within 10 Kms from the boundaries on the project site.		Date: 14/11/2025
5	Statutory compliance	The project proponent shall obtain Consent to Establish and Consent to Operate from the State Pollution Control Board, Odisha and effectively implement all the conditions stipulated therein.
PPs Submission: Complied The Consent to Establish had already been obtained from Odisha State Pollution Control Board vide letter no. 17750/IND II NOC 5664 dated 30.09.2013 and same has been vested for 50 years. We have also obtained the Consent to Operate as consent order No. 2950 issued vide letter No. 6093/IND I CON 226, dt. 25/03/2025, valid till 31.03.2026.		Date: 14/11/2025
6	Statutory compliance	Environmental Clearance is subject to final order of the Hon ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No. 460 of 2004, as may be applicable to this project.
PPs Submission: Complied Final order of the Honorable Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No. 460 of 2004, is awaited. The petition status from the website of Supreme court of India read as Pending for Motion hearing however, this didnot affect the legal status of environmental clearance since the project area/ lease area neither falls partly/wholly within any protected areas (wildlife sanctuaries, national parks, biosphere reserves or any other sensitive zones) nor within 10kms from the boundaries of such protected areas concerning which the original petition was filed. We have not yet received any instructions from the Ministry of Environment, Forest and Climate Change in this regard. The Environmental Clearance is vested for 50 years.		Date: 14/11/2025
7	AIR QUALITY MONITORING AND PRESERVATION	As part of ambient air quality monitoring during operational phase of the project, the air samples shall also be analysed for their mineralogical composition as may be so prescribed or notified by this Ministry and records maintained.
PPs Submission: Complied The ambient air quality is monitored twice a week at six locations within the Core Zone. The air samples are also analysed for their mineralogical composition on quarterly basis. All the stipulated parameters are being analysed and reported to OSPCB on monthly basis. The report has been attached as Annexure I.		Date: 17/11/2025
8	MISCELLANEOUS	The ores and minerals shall be covered by tarpaulin or by such other means when transported out of the mine by road. The vehicles shall not be overloaded.
PPs Submission: Complied Mineral and ores, transported out of the mine lease boundary to the various destinations were completely covered by tarpaulin and secured in position by safety straps. However, dispatch have been stopped since March 2025 as we are in the process of surrendering the mine.		Date: 14/11/2025
9	AIR QUALITY MONITORING AND PRESERVATION	Effective safeguard measures such as conditioning of ore with water, regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter

		such as around crushing and screening plant, loading and unloading point and transfer points. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
PPs Submission: Complied Ambient air quality is being monitored at six locations within the core zone/lease area as per NAAQS 2009 guidelines. Currently, the mining operation has been stopped, final mine closure has been approved by IBM vide letter no. MCDR MiFL0CR/5/2022 BBS IBM RO BBS and the application for surrendering of mine lease has been submitted to state govt. vide letter no. VPRM/038/25.		Date: 17/11/2025
10	WATER QUALITY MONITORING AND PRESERVATION	The project authority shall implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.
PPs Submission: Complied Rainwater harvesting measures in the form of series of harvesting ponds were constructed in the peripheral villages in coordination with Tata Steel Foundation, CSR wing of Tata Steel. CGWA has granted NOC for groundwater abstraction vide NOC no. CGWA/NOC/MIN/ORIG/2024/21093 dated 17/12/2024. Presently, a fully functional roof top rainwater harvesting project (water harvesting potential of 1220 m3) at the administrative office inaugurated in Oct 2014 is in working condition. Further, feasibility study was conducted through KRG Foundation to explore the possibility of water harvesting in the nearby villages located in the mine periphery. As per the recommendations we have constructed 14 nos of rainwater harvesting ponds (30x30x3 mtr) and check dams for water recharge.		Date: 14/11/2025
11	WATER QUALITY MONITORING AND PRESERVATION	Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and installing new piezometers during the mining operation. The periodic monitoring (at least four times in a year pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January), once in each season) shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment and Forests and its Regional Office Bhubaneswar, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity; necessary corrective measures shall be carried out.
PPs Submission: Complied Ground water levels and quality are being monitored continuously through a network of piezometers constructed along the mine periphery. The trend analysis of the ground water level is attached.		Date: 17/11/2025
12	WASTE MANAGEMENT	The maximum height of the overburden dumps from its toe to the top of the dump on sloping ground shall not be more than 110 m. The dump slope shall be suitably terraced by leaving berms of adequate width in between lifts such that the overall slope angle (i.e. angle between the line joining the crest to the toe of the dump and across all such lifts with the horizontal) does not exceed 28 degrees.
PPs Submission: Complied Currently, the mining operation has been stopped, final mine closure has been approved by IBM vide letter no. MCDR MiFL0CR/5/2022 BBS IBM RO BBS and the application for surrendering of mine lease has been submitted to state govt. vide letter no. VPRM/038/25.		Date: 14/11/2025
13	WASTE MANAGEMENT	The individual slopes and berms of each lift or bench of the overburden dump when completed shall be provided with adequate

		drainage arrangements or shall be suitably stabilized by such other means to prevent erosion due to surface run-offs.
PPs Submission: Complied Adequate stabilization measures were implemented for the dump slopes maintained with proper drainage network. Currently, the mining operation has been stopped, final mine closure has been approved by IBM vide letter no. MCDR MiFL0CR/5/2022 BBS IBM RO BBS and the application for surrendering of mine lease has been submitted to state govt. vide letter no. VPRM/038/25.		Date: 14/11/2025
14	WASTE MANAGEMENT	Adequate precautionary measures shall be taken for strengthening the dump foundation. Particularly while dumping over soft ground, the toe region all along the extremities of such dumps shall be suitably buttressed with hard rocky boulders after excavating the topsoil and soft ground. Dumping operations shall commence only after such preparatory work for the dump foundation is completed in order to prevent its failure, which may trigger a slide of the entire dump.
PPs Submission: Complied Currently, the mining operation has been stopped, final mine closure has been approved by IBM vide letter no. MCDR MiFL0CR/5/2022 BBS IBM RO BBS and the application for surrendering of mine lease has been submitted to state govt. vide letter no. VPRM/038/25.		Date: 14/11/2025
15	LAND RECLAMATION	All external over burden dumps at the end of the mine life shall be reclaimed and rehabilitated by afforestation. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment and Forests and its Regional Office located at Bhubaneswar on six monthly basis
PPs Submission: Complied Rehabilitation of OB dumps was done in accordance with the provisions of the approved mine plan and final mine closure plan.		Date: 14/11/2025
16	WATER QUALITY MONITORING AND PRESERVATION	Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, soil, mineral and OB dump(s) to prevent run off of water and flow of sediments directly into the Damsala Nallah and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. Garland drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and over burden dump(s) to prevent run off of water and flow of sediments directly into the Damsala Nallah and other water bodies and sump capacity should be designed keeping 50 percent safety margin over and above peak sudden rainfall (based on 20 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.
PPs Submission: Complied Garland drain and settling pits of appropriate dimensions have been constructed to arrest the silts and sediments during the wash out/runoff from the mine workings/dumps. The adequacy of the surface runoff management is to be assessed and validated while considering the rainfall data of the region. Entire surface runoff from the mine is guided up to the Effluent Treatment Plant of capacity 4500Kl/hr from where the treated effluent is reused/recycled back for greenbelt development and maintenance, dust suppression, drinking and other domestic utilities. Currently, the mining operation has been stopped, final mine closure has been approved by IBM vide letter no. MCDR		Date: 14/11/2025

MiFL0CR/5/2022 BBS IBM RO BBS and the application for surrendering of mine lease has been submitted to state govt. vide letter no. VPRM/038/25. Only dewatering of mine pit is being carried out for usage of domestic water after treatment in ETP and WTP.			
17	WASTE MANAGEMENT	Retaining wall having adequate dimensions shall be constructed at the toe of the over burden dumps to check run-off and siltation.	
PPs Submission: Complied Toe wall along with garland drains had been constructed as per the mine plan. The ruptured retaining walls are boulder pitched and maintained around the periphery of the dump. Currently, the mining operation has been stopped, final mine closure has been approved by IBM vide letter no. MCDR MiFL0CR/5/2022 BBS IBM RO BBS and the application for surrendering of mine lease has been submitted to state govt. vide letter no. VPRM/038/25.			Date: 14/11/2025
18	GREENBELT	Plantation shall be raised in an area of 384.44 ha including a 7.5m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, around the higher benches of /excavated void etc. after the completion of opencast mining activity by planting the native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.	
PPs Submission: Complied The plantation programme were carried out as per the Final Mine Closure Plan.			Date: 14/11/2025
19	AIR QUALITY MONITORING AND PRESERVATION	Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of SPM and RPM such as haul road, loading and unloading point and transfer points. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	
PPs Submission: Complied Ambient air quality is monitored at six locations within the core zone/lease area as per NAAQS 2009 guidelines. Currently, the mining operation has been stopped, final mine closure has been approved by IBM vide letter no. MCDR MiFL0CR/5/2022 BBS IBM RO BBS and the application for surrendering of mine lease has been submitted to state govt. vide letter no. VPRM/038/25.			Date: 14/11/2025
20	WATER QUALITY MONITORING AND PRESERVATION	Mine water discharge and/or any waste water shall be properly treated in an ETP/s for the removal of hexavalent chromium and to meet the prescribed standards before reuse/discharge. The runoff from OB dumps and other surface run off shall be analyzed for hexavalent chrome and in case its concentration is found higher than the permissible limit, the waste water should be treated before discharge/reuse.	
PPs Submission: Complied An Effluent Treatment Plant (ETP) of capacity 4500KL/hr designed with automated dosing system, clari flocculator, and flash mixture, dry sludge collection system, multi bed filtration system, etc, was in operation for surface runoff/mine water treatment. FeSO4 is used as the reductant to ensure removal of Cr6. The effectiveness of the treatment was continuously monitored through real time online monitoring system with Sensor based analysers for parameters like pH, TSS and Cr6. Apart from the continuous effluent monitoring system, samples from the Inlet and Outlet of ETP are also analysed at our laboratory (inhouse facility) on daily basis for all the operational shifts. Surface water samples are also analysed from the mine pits, runoffs from dumps, etc. by an OSPCB accredited third party on monthly basis and records are being maintained. No discharge of runoff/effluent is allowed without prior treatment and checking its conformance with the permissible standards.			Date: 14/11/2025
21	WATER QUALITY	The decanted water from the beneficiation plant shall be re-	

	MONITORING AND PRESERVATION	circulated within the plant and there shall be zero discharge.
PPs Submission: Complied Beneficiation plant is not operational, hence there no waste water is being generated.		Date: 14/11/2025
22	WATER QUALITY MONITORING AND PRESERVATION	Regular monitoring of water quality upstream and downstream of Damsala Nallah shall be carried out and record of monitoring data should be maintained and submitted to Ministry of Environment and Forests, its Regional Office, Bhubneswar, Central Groundwater Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.
PPs Submission: Complied The monitoring of water quality at upstream and downstream of Damsala Nallah is being carried out by an OSPCB empanelled laboratory and the records were maintained and submitted to the State Pollution Control Board on monthly basis. Monitoring results were also submitted along with the compliance report to the MoEF and CC (regional Office) with the abstract of the monitoring results.		Date: 17/11/2025
23	WATER QUALITY MONITORING AND PRESERVATION	Appropriate mitigative measures shall be taken to prevent pollution of Damsala Nallah, if any, in consultation with the State Pollution Control Board.
PPs Submission: Complied Following mitigative measures have been implemented to prevent pollution of Damsala Nallah: 1. ETP with capacity of 4500Kl/hr, designed with settling pit, flash mixture, clarri focculator, automatic dosing system, dry sludge collection system, multi sand filters etc. was in operation. 2. Treated water from the ETP is reused /recycled within the mine for various purposes like greenbelt, dust suppression, drinking water treatment etc. to minimize the discharge load on the Damsala Nallah. 3. No effluent is discharged beyond the mine premises without prior treatment and its conformance with the permissible discharge norms. 4. Effluents discharged from the outlet of ETP, are monitored on real time basis with continuous effluent monitoring system for parameters like pH, TSS, flow and Cr 6. 5. We have been utilising the mine effluents for drinking purpose within the camp since May 2018 after two stage treatment processes such as primary treatment at ETP with correction to suspended solids, pH, Hexavalent Chromium and secondary treatment at WTP with disinfection and other subsequent processes.		Date: 14/11/2025
24	Statutory compliance	The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water for the project.
PPs Submission: Complied The total water requirement is fulfilled from the ETP treated water. No surface water is being withdrawn for mining use.		Date: 14/11/2025
25	WATER QUALITY MONITORING AND PRESERVATION	Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with Regional Director, Central Ground Water Board.
PPs Submission: Complied One roof top rain water harvesting structure had been constructed at administrative office building which is working effectively. Further, feasibility study was conducted through KRG Foundation to explore the possibility of water harvesting in the nearby villages located in the mine periphery. As per the recommendations we have constructed 14 nos of rainwater harvesting ponds (30x30x3 mtr) and check dams for water recharge.		Date: 14/11/2025
26	MISCELLANEOUS	Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral from mine face to the beneficiation plant. The vehicles shall not be overloaded.

PPs Submission: Complied Currently, the mining operation has been stopped, final mine closure has been approved by IBM vide letter no. MCDR MiFL0CR/5/2022 BBS IBM RO BBS and the application for surrendering of mine lease has been submitted to state govt. vide letter no. VPRM/038/25.		Date: 14/11/2025
27	Risk Mitigation and Disaster Management	Blasting operation shall be carried out only during the daytime. Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.
PPs Submission: Complied Currently, the mining operation has been stopped, final mine closure has been approved by IBM vide letter no. MCDR MiFL0CR/5/2022 BBS IBM RO BBS and the application for surrendering of mine lease has been submitted to state govt. vide letter no. VPRM/038/25.		Date: 14/11/2025
28	AIR QUALITY MONITORING AND PRESERVATION	Mineral handling plant shall be provided with either adequate number of high efficiency dust extraction system or water injection system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
PPs Submission: Complied No mineral handing plant (COB Plant, Crushing and Screening Plant) is in operation.		Date: 14/11/2025
29	Statutory compliance	Consent to operate shall be obtained from State Pollution Control Board prior to start of enhanced production from the mine.
PPs Submission: Complied We have obtained the Consent to Operate as consent order No. 2950 issued vide letter No. 6093/IND I CON 226, dt. 25/03/2025, valid till 31.03.2026		Date: 14/11/2025
30	WATER QUALITY MONITORING AND PRESERVATION	Sewage treatment plant shall be installed for the colony. ETP shall also be provided for workshop and waste water generated during mining operation.
PPs Submission: Complied A Sewage Treatment Plant of 1000KLD had been constructed as per BIS standard for domestic effluent/sewerage and the treated effluent is being reused for garden development. An ETP with capacity of 4500 Kl/hr having the facilities like, settling pit, flash mixture, clarri flocculator, dry sludge collection system, multi sand filters, etc. had been constructed and in operation for the treatment of mine pit water and surface runoff.		Date: 14/11/2025
31	MISCELLANEOUS	Digital processing of the entire lease area using remote sensing technique shall be carried out regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment and Forests and its Regional Office, Bhubaneswar.
PPs Submission: Complied The drone image was submitted with compliance report for RO inspection on 02.08.2023 .		Date: 14/11/2025
32	AIR QUALITY MONITORING AND PRESERVATION	Regular monitoring of ambient air quality including free silica shall be carried out and records maintained.
PPs Submission: Complied Regular monitoring of ambient air quality is carried out at six locations as per NAAQS 2009 and the free silica in ambient air is monitored by personal dust sampling to assess the workforces exposure to RPM in ambient air and percent free silica content in it. The record is maintained.		Date: 14/11/2025

33	Human Health Environment	Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.

PPs Submission: Complied Pre Employment/Pre placement medical examination is mandatorily ensured for employees prior to their joining. Apart from this, periodical medical examination (PME) is conducted for all employees and the records are maintained. Besides this the company is also undertaking various initiatives for the improvement in the occupational health and for removing the safety hazards at industrial workplace.	Date: 14/11/2025

34	Statutory compliance	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna such as elephant etc. spotted in the buffer zone of the mine and contribute towards the cost of implementation of the plan and/or Regional Wildlife Management Plan for conservation of flora and fauna so prepared by the State Forest and Wildlife Department. The amount so contributed shall be included in the project cost. A copy of action plan shall be submitted to the Ministry and its Regional Office, Bhubaneswar within 3 months.

PPs Submission: Complied Site specific Wildlife Conservation Plan has already been submitted to DFO, Cuttack vide our letter no. SCM/ ENV/091/13, dated 18.12.2013. We have contributed to State Specific CAMPA Fund for implementation of Site Specific Wildlife Conservation Plan. All applicable precautionary measures stipulated by State Forest Department and laid down during the approval of Site Specific Wildlife Conservation Plan is adhered to. As per year wise afforestation programme proposed in Mining Plan, plantation was being carried out in optimized waste dump floor and slope.	Date: 14/11/2025

35	MINING PLAN	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment and Forests 5 years in advance of final mine closure for approval.

PPs Submission: Complied This mine was obtained during auction process as per MMDR Act, 2020. We have already submitted the 10 percent of the total resource value to Govt, the amount will be adjusted during closure of mine. The final mine closure has been approved by IBM vide letter no, MCDR MiFL0CR/5/2022 BBS IBM RO BBS and the application for surrendering of mine lease has been submitted to state govt. vide letter no. VPRM/038/25.	Date: 14/11/2025

36	Statutory compliance	Drills shall either be operated with dust extractors or equipped with water injection system.

PPs Submission: Complied Currently, the mining operation has been stopped, final mine closure has been approved by IBM vide letter no. MCDR MiFL0CR/5/2022 BBS IBM RO BBS and the application for surrendering of mine lease has been submitted to state govt. vide letter no. VPRM/038/25.	Date: 14/11/2025

37	Statutory compliance	The project authority shall adopt best mining practices for given conditions in the mining area, adequate number of check dam, retaining wall/ structure, garland drains and settling ponds should be provided to arrest the wash off with rain water in catchment area.

PPs Submission: Complied We had adopted best mining practices. Currently, the mining operation has been stopped, final mine closure has been approved by IBM vide letter no. MCDR MiFL0CR/5/2022 BBS IBM RO BBS and the application for surrendering of mine lease has been submitted to state govt. vide letter no. VPRM/038/25	Date: 14/11/2025

38	WATER QUALITY MONITORING AND PRESERVATION	The natural water bodies and or stream which are flowing in and 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 authority has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug well
PPs Submission: Complied No such water bodies exist within mine lease area. Damsala Nallah being the only water body flowing within the buffer zone of mine whereby mining operation doesnot have any direct intervention w.r.t diversion or alteration to its existence, however, effluent from mine is discharged into the streams of Dumsala Nallah but only after ensuring proper treatment within mine for which an ETP of capacity 4500Kl/hr is in operation. Ground water monitoring is regularly carried out by means of a network of open dug wells in the buffer zone i.e nearby villages on quarterly basis. Water harvesting and water recharge structure like pond have been constructed in nearby villages. The change in ground water level is given in Annexure I. During dry season we have supplied the drinking water to the near by villages.		Date: 14/11/2025
39	MISCELLANEOUS	The illumination and sound at night at project sites disturb the village in respect of both human and animal population. Consequent sleeping disorder and stress may affect the health in the village located close to mining operation. Habitations have a right to darkness and minimal noise level at night. The Project Proponents must ensure that the biological clock of the village is not disturbed by orienting the floodlights mask way from the village and keeping the noise levels well within prescribed limits for day/ night hours.
PPs Submission: Complied No such long-range flood lights have been installed within mine. All Lighting masts installed within mine are oriented for optimal illumination within mine lease area. There are no such villages located in closed proximity to the mine other than village Kakudia, which is distantly located from the working pits and is near to OB dumps where mining operation (dumping) is no longer carried out since 2014 and moreover there lies a barrier of natural forest b/w dump and the village. Safety zone all along the lease periphery is maintained with plantation which also acts as a barrier. The noise monitoring data of nearby villages are attached as Annexure I.		Date: 17/11/2025
40	MISCELLANEOUS	The project Authority shall make necessary alternative arrangement, where required, in consultation with state Government to provided alternated areas for livestock grazing. In this case context, the Project Authority should implement the direction of Hon ble Supreme Court with regard to acquiring grazing land. The sparse tress on such grazing ground, which provides mid-day shelter from the scorching sun, should be scrupulously guarded felling lest the cattle abandon the grazing ground or return home by noon.
PPs Submission: Complied The entire mine area of 406.00ha is of govt lands (404.669ha of forest land and 1.331ha of non-forest land). No such grazing land have been acquired by the company.		Date: 14/11/2025
41	Statutory compliance	Where ever blasting is undertaken as part of mining activity, the Project Authority shall carry out vibration studies well before approaching any such habitats or other building to evaluate the zone of influence and impact of blasting on neighbourhood. Within 500 meters of such sites vulnerable to blasting vibration, avoidance of use of explosives and adoption of alternative means of mineral extraction such as ripper/dozer combination/ rock breakers/ surface mineral etc should be seriously considered and practiced wherever practicable. A provision for monitoring of each blast should be made so that impact of blasting on nearby habitation and dwelling unit could be ascertained. The covenant of lease deed under rule 31 of MCR 1960 provided that no mining operation shall be carried out within 50

		meters of public works such as public roads and building or inhabited sites except with prior permission from the competent Authority.
PPs Submission: Complied Currently, the mining operation has been stopped, final mine closure has been approved by IBM vide letter no. MCDR MiFL0CR/5/2022 BBS IBM RO BBS and the application for surrendering of mine lease has been submitted to state govt. vide letter no. VPRM/038/25.		Date: 14/11/2025
42	AIR QUALITY MONITORING AND PRESERVATION	Main haulage road in the mines should be provided with permanent water sprinkler and other road should be regularly wetted water tanker fitted with sprinkler. Crusher and material transfer points should be invariably be provided with bag filter and or dry fogging system. Belt conveyor fully covered to avoid air borne dust.
PPs Submission: Complied Currently, the mining operation has been stopped, final mine closure has been approved by IBM vide letter no. MCDR MiFL0CR/5/2022 BBS IBM RO BBS and the application for surrendering of mine lease has been submitted to state govt. vide letter no. VPRM/038/25.		Date: 14/11/2025
43	MISCELLANEOUS	The project Authority shall ensure that productivity of agriculture crops is not affected due to the mining operation. Crop Liability Insurance Policy has to be taken by PP as a precaution to compensate for the crop loss. The impact zone shall be 5 Km from the boundary of mine lease area for insurance policy. In case, several mines are located in cluster mines, formed inter alia, to sub serve such and objective shall be responsibility for securing such Crop Liability Policy.
PPs Submission: Complied The mine is surrounded by many mines owned by other lessees. So far there is no such potential adverse impact on the agricultural land had been evidence. However, in case of any such scenario is envisaged in future the same will be addressed in desired manner.		Date: 14/11/2025
44	MISCELLANEOUS	In case any village is located within the mining leasehold which is not likely to be affected due to mining activities during the life of mine, the Expert Appraisal Committee (EAC) should consider the proposal of Environmental Clearance (EC) for reduced mining area. The mining lease may be executed for the area for which EC is accorded. The mining plan also accordingly revised and required stipulation under the MMDR Act 1957 and MCR 1969 met.
PPs Submission: Complied There are no villages within the lease hold area of 406.0ha for which EC had been accorded by MoEFCC.		Date: 14/11/2025
45	MISCELLANEOUS	Transportation of minerals by road passing through the village shall not be allowed. A bypass road should be constructed (say leaving a gap of at least 200 m) for the purpose of transportation of minerals so that the impact of sound, dust and accidents could be mitigated. The PP shall bear the cost towards the widening and strengthening of existing public road network in case same is proposed to be used for the project. No road movement should be allowed on existing village road network without appropriately increasing carrying capacity of such road.
PPs Submission: Complied Currently, the mining operation and despatch has been stopped , final mine closure has been approved by IBM vide letter no. MCDR MiFL0CR/5/2022 BBS IBM RO BBS and the application for surrendering of mine lease has been submitted to state govt. vide letter no. VPRM/038/25.		Date: 14/11/2025

46	MISCELLANEOUS	Likewise, alteration or re-routing of foot paths, pagdandies, cart road and village infrastructure/ public utilities or roads (for purpose of land acquisition for mining) shall be avoided to extent possible and in such case acquisition is inevitable, alternative arrangements shall be made first and the only the area can be acquired. In these types of cases Inspection reports by site visit by expert may be insisted upon which should be done through reputed Institutes.
PPs Submission: Complied Entire lease area of 406.0ha is govt. land (404.669ha of forest land and 1.331ha of non-forest land thus this project is not subjected to land acquisition.		Date: 14/11/2025
47	MISCELLANEOUS	The CSR activates by companies including mining establishment has become mandatory up to 2 percent their financial turn over, socio Economic Development of neighbourhood. Habitats could also be planned and executed by the PPs more systemically based on need based door to door survey by established Social Institute/ Workers on the lines as required under TOR. R and R Plan// compensation details for Project Affected People (PAP) should be furnished. While preparing the R and R plant, the relevant State/ national Rehabilitation and Resettlement Policy should be kept in view. In respect of SCs and STs and weaker section of society in study, a need bashed sample survey, family-wise, should be undertaken to assess their requirement, and action programmes prepared and submitted accordingly, integrating the sectoral programs of line department of State Government. It may be clearly brought out whether the village including their R and R and socio-economics aspect should be discussed in EIA report.
PPs Submission: Complied CSR activities are undertaken by Tata Steel Foundation dept. of Tata Steel in and around the mine. A minimum of 2 percent of the average profit of the last 3 years is being spend towards expenditure on CSR. This mine is not subjected to land acquisition because the nature of land involved (govt. land) thereby eliminating the R R obligations of the company.		Date: 14/11/2025

General Conditions

Sr.No.	Condition Type	Condition Details
1	Statutory compliance	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and Forests.
PPs Submission: Complied There was no change in mining technology and scope of working. Mine is operated within the scope of the vested EC and approved mining plan.		Date: 14/11/2025
2	Statutory compliance	The calendar plan quantity of excavation, chrome ore, beneficiated chrome concentrates, pyroxenite ore and waste shall not be exceeded.
PPs Submission: Complied Currently, the mining operation has been stopped, final mine closure has been approved by IBM vide letter no. MCDR MiFL0CR/5/2022 BBS IBM RO BBS and the application for surrendering of mine lease has been submitted to state govt. vide letter no. VPRM/038/25.		Date: 14/11/2025
3	AIR QUALITY MONITORING AND PRESERVATION	At least four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM (Particulate matter with size less than 10 micron i.e., PM10) and NOX monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally

		and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board. The data so recorded should be regularly submitted to the Ministry including its Regional office located at Bhubaneswar and the State Pollution Control Board / Central Pollution Control Board once in six months.
PPs Submission: Complied Six ambient air quality monitoring stations (four in the work zone, one in residential area and one near dispensary) is established for ambient air quality monitoring in line with CPCB guidelines fulfilling the requirements of NAAQS 2009. Apart from this, quarterly monitoring is also done at 10 buffer zone locations in the nearby villages. Parameters monitored are as per NAAQS 2009. The locations have been finalized in consultation with Regional Officer, State Pollution Control board according to the impact zone and wind direction. The monthly monitoring report is being submitted to SPCB for compliance to the specific and general conditions.		Date: 14/11/2025
4	Noise Monitoring & Prevention	Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.
PPs Submission: Complied DG sets were provided with acoustic enclosures to control the noise level below 85dB(A) in the work environment. Currently, the mining operation has been stopped, final mine closure has been approved by IBM vide letter no. MCDR MiFL0CR/5/2022 BBS IBM RO BBS and the application for surrendering of mine lease has been submitted to state govt. vide letter no. VPRM/038/25.		Date: 14/11/2025
5	WATER QUALITY MONITORING AND PRESERVATION	There will be zero waste water discharge from the plant.
PPs Submission: Complied There is no chrome Ore beneficiation plant.		Date: 14/11/2025
6	Human Health Environment	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 Persons working in dusty areas are provided with DGMS approved dust masks. Regular training programmes are conducted for the employees for raising awareness on health and safety aspects.		Date: 14/11/2025
7	Human Health Environment	Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.
PPs Submission: Complied All the employees have to undergo periodical medical examination (PME) in hospital. To improve the occupational health and removing the safety hazards at industrial workplace, TSL has formulated Zero harm policy. Apart from this, persons engaged in mining operations are also tested for their exposure to free silica content in respirable air (RPM) on quarterly basis.		Date: 14/11/2025
8	MISCELLANEOUS	A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
PPs Submission: Complied The Environmental Management Cell is headed by the Head Environment Management RM at the corporate level who reports to senior management and is supported by Manager (Environment) and Environmental Monitoring Group at the site.		Date: 14/11/2025

9	MISCELLANEOUS	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office located at Bhubaneswar.
PPs Submission: Complied The fund earmarked for environmental protection measures are kept in separate cost centers and tracked regularly and the detail report for FY26 will be submitted with FY 26 H2 EC compliances		Date: 17/11/2025
10	Statutory compliance	The project authorities should inform to the Regional Office located at Bhubaneswar 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: Complied In accordance to the Rule 24 of MCDR 2017, final mine closure has been approved by IBM vide letter no. MCDR MiFL0CR/5/2022 BBS IBM RO BBS and the application for surrendering of mine lease has been submitted to state govt. vide letter no. VPRM/038/25.		Date: 14/11/2025
11	Statutory compliance	The Regional Office of this Ministry located at Bhubaneswar shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/ information/ monitoring reports.
PPs Submission: Agreed to Comply The mine management will always be extending full cooperation to officer(s) of Regional office by furnishing the requisite data/ information/ monitoring report as and when required.		Date: 14/11/2025
12	Statutory compliance	The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the Ministry of Environment and Forests, its Regional Office Bhubaneswar, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board. The proponent shall upload the status of compliance of the 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 the Ministry of Environment and Forests, Bhubaneswar, the respective Zonal Officer of Central Pollution Control Board and the State Pollution Control Board.
PPs Submission: Complied Six monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data will be submitted to the Ministry of Environment, Forests and Climate Change and its Regional Office Bhubaneswar, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board in soft copy. The Six monthly EC compliance report along with environmental monitoring data is being uploaded in our website (www.tatasteel.com).		Date: 14/11/2025
13	MISCELLANEOUS	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations, if any, where received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
PPs Submission: Complied The Environment Clearance letters was sent to concerned Panchayat, Zila Parisad / Municipal Corporation, Urban Local Body. The clearance letter is being displayed in website.		Date: 14/11/2025

14	MISCELLANEOUS	The State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and the Collectors office/ Tehsildars Office for 30 days.

PPs Submission: Complied Copy of the EC clearance letter has already been sent to Odisha State Pollution Control Board, its Regional office, District Industry Centre and the Collectors office/ Tehsildars Office.	Date: 14/11/2025

15	MISCELLANEOUS	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned 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 environmental clearance conditions and shall also be sent to the respective Regional Office of the Ministry of Environment and Forests, Bhubaneswar by e-mail.

PPs Submission: Complied The Environment Statement in Form V is submitted before 30th Sept of every year .Copy of Environmental Statement is being sent to the State Pollution Control Board and to the Regional Office of MoEF and CC by e mail. Environmental statement is being updated/uploaded on the website (www.tatasteel.com). The Environment Statement for FY24 vide letter number TSL/SCM/FY26/3098, was submitted on 25.09.2025 and the same is also uploaded in the company website. The same has been attached as Annexure II.	Date: 17/11/2025

16	MISCELLANEOUS	The project authorities should advertise at least in two local newspapers of the District or State in which the project is located and widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project had been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment and Forests at http://envfor.nic.in and a copy of the same should be forwarded to the Regional Office of this Ministry located at Bhubaneswar.

PPs Submission: Complied The grant of Environmental Clearance was advertised earlier in the Oriya daily "The Samaja" (date: 11.09.2013, page 5) and in English daily "The New Indian Express" (date: 11.09.2013, page 5). Copy of the above advertisement is also forwarded to the Eastern Regional Office of the MoEF vide letter no. SCM/ ENV/ 012/066/13, dated 18.06.2013. Now the same EC has been vested to Sukinda Chromite Block, M/s. Tata Steel Mining Limited (TSML) for fifty (50) years and name change done TSML to TSL.	Date: 14/11/2025

Visit Remarks

Last Site Visit Report Date:	N/A
Additional Remarks:	

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.

Report. No: Envlab/25-26/TR-15214 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
AMBIENT AIR QUALITY (CORE ZONE)

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

AAQMS1- View Point												
Monthly Average	PM_{10} µg/m^3	$PM_{2.5}$ µg/m^3	SO_2 µg/m^3	NOx µg/m^3	CO mg/m^3	O_3 µg/m^3	NH_3 µg/m^3	C_6H_6 µg/m^3	Benzo(a) Pyrene ng/m^3	Pb Lead µg/m^3	As Arsenic ng/m^3	Ni Nickel ng/m^3
APRIL-25	86.2	48.0	12.6	19.6	0.63	11.8	BDL	BDL	BDL	BDL	BDL	BDL
MAY-25	80.5	40.2	13.0	21.3	0.6	11.7	BDL	BDL	BDL	BDL	BDL	BDL
JUNE-25	70.0	35.6	12.6	19.5	0.7	11.6	BDL	BDL	BDL	BDL	BDL	BDL
JULY-25	67.9	33.7	11.8	19.8	0.58	11.1	BDL	BDL	BDL	BDL	BDL	BDL
AUG-25	63.03	31.96	11.4	18.3	0.55	11.51	BDL	BDL	BDL	BDL	BDL	BDL
SEPT-25	61.2	29.2	12.1	20.6	0.59	12.0	BDL	BDL	BDL	BDL	BDL	BDL
AVERAGE	71.47	36.44	12.2	19.8	0.60	11.61	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, P ART-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-15215 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
AMBIENT AIR QUALITY (CORE ZONE)

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

AAQMS2- Paradeep Gate												
Monthly Average	PM10 µg/m3	PM2.5 µg/m3	SO2 µg/m3	NOx µg/m3	CO mg/m3	O3 µg/m3	NH3 µg/m3	C6H6 µg/m3	Benzo(a) Pyrene ng/m3	Pb Lead µg/m3	As Arsenic ng/m3	Ni Nickel ng/m3
APRIL-25	63.3	34.0	12.0	21.1	0.67	11.4	BDL	BDL	BDL	BDL	BDL	BDL
MAY-25	60.4	32.9	12.6	22.4	0.68	12.5	BDL	BDL	BDL	BDL	BDL	BDL
JUNE-25	57.6	29.5	12.6	20.7	0.63	11.8	BDL	BDL	BDL	BDL	BDL	BDL
JULY-25	55.9	29.2	11.7	17.8	0.54	11.6	BDL	BDL	BDL	BDL	BDL	BDL
AUG-25	54.0	29.5	11.5	17.8	0.53	11.1	BDL	BDL	BDL	BDL	BDL	BDL
SEPT-25	56.6	28.3	11.6	19.9	0.54	11.5	BDL	BDL	BDL	BDL	BDL	BDL
AVERAGE	57.96	30.56	12	19.95	0.59	11.65	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, P ART-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-15216 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
AMBIENT AIR QUALITY (CORE ZONE)

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

AAQMS3- COB Plant												
Monthly Average	PM10 µg/m3	PM2.5 µg/m3	SO2 µg/m3	NOx µg/m3	CO mg/m3	O3 µg/m3	NH3 µg/m3	C6H6 µg/m3	Benzo(a) Pyrene ng/m3	Pb Lead µg/m3	As Arsenic ng/m3	Ni Nickel ng/m3
APRIL-25	67.4	33.0	12.2	19.4	0.56	12.0	BDL	BDL	BDL	BDL	BDL	BDL
MAY-25	70.1	38.3	12.9	21.3	0.59	12.5	BDL	BDL	BDL	BDL	BDL	BDL
JUNE-25	64.6	32.5	12.7	20.0	0.52	11.6	BDL	BDL	BDL	BDL	BDL	BDL
JULY-25	60.1	30.1	11.6	18.8	0.49	11.1	BDL	BDL	BDL	BDL	BDL	BDL
AUG-25	60.5	31.6	11.6	18.7	0.49	11.4	BDL	BDL	BDL	BDL	BDL	BDL
SEPT-25	61.8	28.2	11.7	19.9	0.52	11.6	BDL	BDL	BDL	BDL	BDL	BDL
AVERAGE	64.08	32.28	12.11	19.68	0.52	11.7	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, P ART-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- 15217 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
AMBIENT AIR QUALITY (CORE ZONE)

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

AAQMS4- Laboratory Top												
Monthly Average	PM10 µg/m3	PM2.5 µg/m3	SO2 µg/m3	NOx µg/m3	CO mg/m3	O3 µg/m3	NH3 µg/m3	C6H6 µg/m3	Benzo(a) Pyrene ng/m3	Pb Lead µg/m3	As Arsenic ng/m3	Ni Nickel ng/m3
APRIL-25	54.8	27.9	11.1	16.8	0.54	11.7	BDL	BDL	BDL	BDL	BDL	BDL
MAY-25	56.1	32.0	11.6	17.4	0.54	12.4	BDL	BDL	BDL	BDL	BDL	BDL
JUNE-25	50.0	25.8	11.3	16.7	0.52	11.5	BDL	BDL	BDL	BDL	BDL	BDL
JULY-25	47.1	22.5	10.1	13.8	0.47	11.0	BDL	BDL	BDL	BDL	BDL	BDL
AUG-25	45.4	22.4	9.7	12.4	0.44	10.9	BDL	BDL	BDL	BDL	BDL	BDL
SEPT-25	45.8	25.1	10.0	12.2	0.48	10.6	BDL	BDL	BDL	BDL	BDL	BDL
AVERAGE	49.86	25.95	10.63	14.88	0.49	11.35	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, P ART-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-15218 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
AMBIENT AIR QUALITY (CORE ZONE)

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

AAQMS5- Nickel Guest House												
Monthly Average	PM10 µg/m3	PM2.5 µg/m3	SO2 µg/m3	NOx µg/m3	CO mg/m3	O3 µg/m3	NH3 µg/m3	C6H6 µg/m3	Benzo(a) Pyrene ng/m3	Pb Lead µg/m3	As Arsenic ng/m3	Ni Nickel ng/m3
APRIL-25	60.1	30.7	11.8	14.8	0.56	9.4	22.4	BDL	BDL	BDL	BDL	BDL
MAY-25	61.6	35.8	12.2	15.1	0.60	9.7	22.9	BDL	BDL	BDL	BDL	BDL
JUNE-25	53.0	27.7	11.6	14.5	0.52	9.8	22.2	BDL	BDL	BDL	BDL	BDL
JULY-25	48.6	26.2	11.2	13.5	0.46	9.8	21.4	BDL	BDL	BDL	BDL	BDL
AUG-25	46.7	23.0	10.8	12.8	0.41	9.8	21.3	BDL	BDL	BDL	BDL	BDL
SEPT-25	45.3	24.3	10.9	13.7	0.44	9.2	20.9	BDL	BDL	BDL	BDL	BDL
AVERAGE	52.55	27.95	11.41	14.06	0.49	9.6	21.8	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, P ART-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-15219 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
AMBIENT AIR QUALITY (CORE ZONE)

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

AAQMS6- Stack Yard												
Monthly Average	PM10 µg/m3	PM2.5 µg/m3	SO2 µg/m3	NOx µg/m3	CO mg/m3	O3 µg/m3	NH3 µg/m3	C6H6 µg/m3	Benzo(a) Pyrene ng/m3	Pb Lead µg/m3	As Arsenic ng/m3	Ni Nickel ng/m3
APRIL-25	69.7	33.3	13.8	20.8	0.59	10.9	BDL	BDL	BDL	BDL	BDL	BDL
MAY-25	70.5	39.6	14.2	21.6	0.61	11.5	BDL	BDL	BDL	BDL	BDL	BDL
JUNE-25	63.1	30.9	13.2	20.1	0.57	10.9	BDL	BDL	BDL	BDL	BDL	BDL
JULY-25	58.2	27.8	11.8	17.3	0.49	10.6	BDL	BDL	BDL	BDL	BDL	BDL
AUG-25	56.4	28.6	11.6	16.7	0.48	10.1	BDL	BDL	BDL	BDL	BDL	BDL
SEPT-25	52.3	27.4	11.7	16.2	0.47	9.8	BDL	BDL	BDL	BDL	BDL	BDL
AVERAGE	61.7	31.26	12.7	18.7	0.53	10.6	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, P ART-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-15220 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
AMBIENT AIR QUALITY (BUFFER ZONE)

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

AAQBZ-1: Birasal												
Monthly Average	PM10 µg/m3	PM2.5 µg/m3	SO2 µg/m3	NOx µg/m3	CO mg/m3	O3 µg/m3	NH3 µg/m3	C6H6 µg/m3	Benzo(a) Pyrene ng/m3	Pb Lead µg/m3	As Arsenic ng/m3	Ni Nickel ng/m3
JUNE-25	52.8	25.1	7.1	13.5	0.25	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SEP-25	41.8	20.9	6.8	13.1	0.29	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Average	47.3	23	6.95	13.3	0.27	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, P ART-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

AAQBZ-2: Maruabil												
Monthly Average	PM10 µg/m3	PM2.5 µg/m3	SO2 µg/m3	NOx µg/m3	CO mg/m3	O3 µg/m3	NH3 µg/m3	C6H6 µg/m3	Benzo(a) Pyrene ng/m3	Pb Lead µg/m3	As Arsenic ng/m3	Ni Nickel ng/m3
JUNE-25	50.5	23.8	6.6	14.2	0.31	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SEP-25	46.9	24.1	7.0	12.8	0.33	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Average	48.7	23.9	6.8	13.5	0.32	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, P ART-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-15221 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
AMBIENT AIR QUALITY (BUFFER ZONE)

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

AAQBZ-3: Sendheswar												
Monthly Average	PM10 µg/m3	PM2.5 µg/m3	SO2 µg/m3	NOx µg/m3	CO mg/m3	O3 µg/m3	NH3 µg/m3	C6H6 µg/m3	Benzo(a) Pyrene ng/m3	Pb Lead µg/m3	As Arsenic ng/m3	Ni Nickel ng/m3
JUNE-25	51.3	25.9	6.9	13.1	0.29	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SEP-25	43.4	21.5	6.2	12.7	0.31	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Average	47.3	23.7	6.55	12.9	0.3	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, P ART-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

AAQBZ-4: Kanheipal												
Monthly Average	PM10 µg/m3	PM2.5 µg/m3	SO2 µg/m3	NOx µg/m3	CO mg/m3	O3 µg/m3	NH3 µg/m3	C6H6 µg/m3	Benzo(a) Pyrene ng/m3	Pb Lead µg/m3	As Arsenic ng/m3	Ni Nickel ng/m3
JUNE-25	51.3	25.9	6.9	13.1	0.29	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SEP-25	45.2	20.7	6.9	13.2	0.28	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Average	48.2	23.3	6.9	13.1	0.28	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, P ART-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-15222 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
AMBIENT AIR QUALITY (BUFFER ZONE)

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

AAQBZ-5: Laxmidharpur												
Monthly Average	PM10 µg/m3	PM2.5 µg/m3	SO2 µg/m3	NOx µg/m3	CO mg/m3	O3 µg/m3	NH3 µg/m3	C6H6 µg/m3	Benzo(a) Pyrene ng/m3	Pb Lead µg/m3	As Arsenic ng/m3	Ni Nickel ng/m3
JUNE-25	56.8	26.2	7.3	14.4	0.31	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SEP-25	44.6	23.3	7.1	12.9	0.30	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Average	50.7	24.7	7.2	13.6	0.30	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, P ART-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
AAQBZ-6: Kakudia												
Monthly Average	PM10 µg/m3	PM2.5 µg/m3	SO2 µg/m3	NOx µg/m3	CO mg/m3	O3 µg/m3	NH3 µg/m3	C6H6 µg/m3	Benzo(a) Pyrene ng/m3	Pb Lead µg/m3	As Arsenic ng/m3	Ni Nickel ng/m3
JUNE-25	51.6	24.2	7.1	13.9	0.27	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SEP-25	46.3	23.7	6.8	12.3	0.26	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Average	48.9	23.9	6.95	13.1	0.2	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, P ART-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-15223 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
AMBIENT AIR QUALITY (BUFFER ZONE)

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

AAQBZ-7: Sukrangi												
Monthly Average	PM10 µg/m3	PM2.5 µg/m3	SO2 µg/m3	NOx µg/m3	CO mg/m3	O3 µg/m3	NH3 µg/m3	C6H6 µg/m3	Benzo(a) Pyrene ng/m3	Pb Lead µg/m3	As Arsenic ng/m3	Ni Nickel ng/m3
JUNE-25	45.3	23.6	6.8	13.8	0.24	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SEP-25	44.1	21.5	6.2	12.4	0.26	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Average	44.7	22.5	6.5	13.1	0.25	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, P ART-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
AAQBZ-8: Kaliapani												
Monthly Average	PM10 µg/m3	PM2.5 µg/m3	SO2 µg/m3	NOx µg/m3	CO mg/m3	O3 µg/m3	NH3 µg/m3	C6H6 µg/m3	Benzo(a) Pyrene ng/m3	Pb Lead µg/m3	As Arsenic ng/m3	Ni Nickel ng/m3
JUNE-25	48.7	25.1	6.2	14.2	0.26	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SEP-25	49.6	25.3	6.5	14.1	0.34	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Average	49.1	25.2	6.35	14.15	0.3	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, P ART-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

Approved By

Report. No: Envlab/25-26/TR-15224 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
AMBIENT AIR QUALITY (BUFFER ZONE)

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

AAQBZ-9: Kalarangi												
Monthly Average	PM10 µg/m3	PM2.5 µg/m3	SO2 µg/m3	NOx µg/m3	CO mg/m3	O3 µg/m3	NH3 µg/m3	C6H6 µg/m3	Benzo(a) Pyrene ng/m3	Pb Lead µg/m3	As Arsenic ng/m3	Ni Nickel ng/m3
JUNE-25	50.2	23.4	7.5	14.5	0.30	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SEP-25	50.1	24.6	7.0	10.9	0.31	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Average	50.1	24	7.2	12.7	0.3	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, P ART-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
AAQBZ-10: Kharkhari												
Monthly Average	PM10 µg/m3	PM2.5 µg/m3	SO2 µg/m3	NOx µg/m3	CO mg/m3	O3 µg/m3	NH3 µg/m3	C6H6 µg/m3	Benzo(a) Pyrene ng/m3	Pb Lead µg/m3	As Arsenic ng/m3	Ni Nickel ng/m3
JUNE-25	46.8	23.9	6.9	14.3	0.29	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SEP-25	44.7	22.8	6.3	12.4	0.28	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Average	45.7	23.3	6.6	13.3	0.2	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, P ART-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-15225 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
STACK EMISSION MONITORING REPORT

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

Stack-1: 500 KVA DG								
Parameters	CPCB Standard for DG≥ 800KW (≥ 1000KVA)	APRIL-25	MAY-25	JUNE-25	JULY-25	AUG-25	SEPT-25	AVERAGE
Stack Temp °C	--	169	178	180	188	190	192	182
Stack Velocity m/sec	--	14.5	15.3	15.1	14.9	14.6	13.9	14.7
Particulate Matter (PM), mg/Nm3	75 mg/Nm^3	62	66	68	70	71	70	67
Oxides of Nitrogen (NOx), ppm	710 ppm	55	58	57	58	55	53	56
Sulphur Dioxide (SO2), ppm	--	14.9	15.5	15.2	15.5	15.2	14.9	15.2
Carbon Monoxide, mg/Nm3	150 mg/Nm^3	57.2	59.3	58.4	53.7	52.5	49.6	55.1
Non Methyl Hydro Carbon as C, mg/Nm3	100 mg/Nm^3	28.6	30.1	29.6	26.9	26.7	27.5	28.2

Stack-2: 500 KVA DG								
Parameters	CPCB Standard for DG≥ 800KW (≥ 1000KVA)	APRIL-25	MAY-25	JUNE-25	JULY-25	AUG-25	SEPT-25	AVERAGE
Stack Temp °C	--	170	172	177	175	178	187	176
Stack Velocity m/sec	--	14.2	14.9	15.3	15.2	15.1	14.1	14.8
Particulate Matter (PM), mg/Nm3	75 mg/Nm^3	58	60	63	67	68	65	63.5
Oxides of Nitrogen (NOx), ppm	710 ppm	51	53	55	53	51	50	52.1
Sulphur Dioxide (SO2), ppm	--	15.2	15.1	15.6	14.9	14.7	14.2	14.9
Carbon Monoxide, mg/Nm3	150 mg/Nm^3	58.8	60.1	59.2	60.2	56.1	53.1	57.9
Non Methyl Hydro Carbon as C, mg/Nm3	100 mg/Nm^3	30	31.2	30.8	30.1	28.5	28.3	29.8

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15226 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
GROUND WATER QUALITY ANALYSIS REPORT

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

GW1: Tube well Water in front of Main Gate						
Sl. No	Parameter	Unit of Measurement	APRIL-25	MAY-25	JUNE-25	JULY-25
1	pH at 25 degree C	--	7.19	7.22	7.15	7.21
2	Turbidity	NTU	1.2	1.3	1.2	1.5
3	Total Hardness	mg/l	118	124	134	146
4	Alkalinity	mg/l	90	92	96	103
5	Total Dissolved Solids	mg/l	246	252	232	245
6	Chloride as Cl	mg/l	31.2	29.6	28.2	27.3
7	Residual free Chlorine	mg/l	<0.1	<0.1	<0.1	<0.1
8	Dissolve Oxygen	mg/l	4.6	4.2	4.4	4.8
9	Calcium as Ca	mg/l	33.1	34.2	33.9	34.2
10	Magnesium as Mg	mg/l	8.6	9.4	12.0	14.7
11	Sulphate as SO4	mg/l	6.1	5.3	5.1	4.9
12	Fluoride as F	mg/l	<0.1	<0.1	<0.1	<0.1
13	Nitrate	mg/l	1.32	1.26	1.26	1.31
14	Hexavalent Chromium as Cr+6	mg/l	<0.01	<0.01	<0.01	<0.01
15	Cyanide (as CN)	mg/l	<0.01	<0.01	<0.01	<0.01
16	Arsenic (as As)	mg/l	<0.004	<0.004	<0.004	<0.004
17	Iron as Fe	mg/l	0.31	0.33	0.31	0.33
18	Lead (as Pb)	mg/l	<0.02	<0.02	<0.02	<0.02
19	Zinc (as Zn)	mg/l	<0.03	<0.03	<0.03	<0.03
20	Copper (as Cu)	mg/l	<0.02	<0.02	<0.02	<0.02
21	Manganese (as Mn)	mg/l	<0.025	<0.025	<0.025	<0.025
22	Mercury as Hg	mg/l	<0.004	<0.004	<0.004	<0.004
23	Cadmium (as Cd)	mg/l	<0.01	<0.01	<0.01	<0.01
24	Boron (as B)	mg/l	<0.1	<0.1	<0.1	<0.1
25	Selenium (as Se)	mg/l	<0.001	<0.001	<0.001	<0.001
26	Mineral Oil	mg/l	<0.5	<0.5	<0.5	<0.5
27	Taste	mg/l	-	Agreeable	Agreeable	Agreeable
28	Anionic detergent as MBAS	mg/l	-	ND	ND	ND
29	Electrical Conductivity at 250C	µS/cm	-	398	356	372
30	Copper as Cu	mg/l	-	<0.02	<0.02	<0.02
31	Nitrate as NO3	mg/l	-	3.5	3.1	2.6
32	Phenolic Compounds as C6H5OH	mg/l	-	<0.001	<0.001	<0.001
33	Cadmium as Cd	mg/l	-	<0.001	<0.001	<0.001
34	Selenium as Se	mg/l	-	<0.01	<0.01	<0.01
35	Cyanide as CN	mg/l	-	<0.05	<0.05	<0.05
36	Lead as Pb	mg/l	-	<0.01	<0.01	<0.01

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15227 **Date: 10.10.2025**

GW2: Tube well Near Market Complex						
Sl. No	Parameter	Unit of Measurement	APRIL-25	MAY-25	JUNE-25	JULY-25
1	pH at 25 degree C	--	7.25	7.26	7.27	7.35
2	Turbidity	NTU	1.1	<1.0	1.1	1.2
3	Total Hardness	mg/l	130	136	142	160
4	Alkalinity	mg/l	102	110	108	118
5	Total Dissolved Solids	mg/l	212	248	196	206
6	Chloride as Cl	mg/l	32.5	30.87	30.9	30.1
7	Residual free Chlorine	mg/l	<0.1	<0.1	<0.1	<0.1
8	Dissolve Oxygen	mg/l	4.8	4.6	4.8	5.1
9	Calcium as Ca	mg/l	32.6	36.8	35.1	33.9
10	Magnesium as Mg	mg/l	11.8	10.7	13.2	18.3
11	Sulphate as SO4	mg/l	6.7	6.1	5.8	5.7
12	Fluoride as F	mg/l	<1.0	<1.0	<1.0	<1.0
13	Nitrate	mg/l	1.2	1.31	1.4	1.46
14	Hexavalent Chromium as Cr+6	mg/l	<0.01	<0.01	<0.01	<0.01
15	Cyanide (as CN)	mg/l	<0.01	<0.01	<0.01	<0.01
16	Arsenic (as As)	mg/l	<0.004	<0.004	<0.004	<0.004
17	Iron as Fe	mg/l	0.35	0.36	0.35	0.29
18	Lead (as Pb)	mg/l	<0.02	<0.02	<0.02	<0.02
19	Zinc (as Zn)	mg/l	<0.03	<0.03	<0.03	<0.03
20	Copper (as Cu)	mg/l	<0.02	<0.02	<0.02	<0.02
21	Manganese (as Mn)	mg/l	<0.025	<0.025	<0.025	<0.025
22	Mercury as Hg	mg/l	<0.004	<0.004	<0.004	<0.004
23	Cadmium (as Cd)	mg/l	<0.01	<0.01	<0.01	<0.01
24	Boron (as B)	mg/l	<0.1	<0.1	<0.1	<0.1
25	Selenium (as Se)	mg/l	<0.001	<0.001	<0.001	<0.001
26	Mineral Oil	mg/l	<0.5	<0.5	<0.5	<0.5
27	Taste	mg/l	-	Agreeable	Agreeable	Agreeable
28	Anionic detergent as MBAS	mg/l	-	ND	ND	ND
29	Electrical Conductivity at 250C	µS/cm	-	402	382	394
30	Copper as Cu	mg/l	-	<0.02	<0.02	<0.02
31	Nitrate as NO3	mg/l	-	2.8	2.9	3.1
32	Phenolic Compounds as C6H5OH	mg/l	-	<0.001	<0.001	<0.001
33	Cadmium as Cd	mg/l	-	<0.001	<0.001	<0.001
34	Selenium as Se	mg/l	-	<0.01	<0.01	<0.01
35	Cyanide as CN	mg/l	-	<0.05	<0.05	<0.05
36	Lead as Pb	mg/l	-	<0.01	<0.01	<0.01

Reviewed By

Approved By

Report. No: Envlab/25-26/TR- 15228 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
SURFACE WATER QUALITY ANALYSIS REPORT

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

SW1: Damsala Nallah Upstream Water									
Sl. No	Parameter	Unit	APRIL-25	MAY-25	JUNE-25	JULY-25	AUG-25	SEPT-25	AVERAGE
1	Colour (max)	Hazen	<15	<15	<15	<25	<20	<20	<20
2	pH Value	--	7.26	7.33	7.72	7.63	7.56	7.32	7.47
3	Suspended solids	mg/l	74	71	68	72	66	60	68.5
4	Dissolved Oxygen (minimum)	mg/l	4.3	4.2	4.2	4.6	5.4	5.5	4.7
5	Turbidity	NTU	10.5	11.3	10.9	14.6	13.9	12.8	12.3
6	Chloride (max)	mg/l	32.9	31.2	30.8	24.6	25.2	26.9	28.6
7	Total Dissolved Solids	mg/l	248	276	286	297	264	281	275.3
8	BOD (3) days at 270C (max)	mg/l	<1	<1	<1	2.1	2.3	2.5	2.3
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	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
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	0.23	0.21	0.24	0.29	0.27	0.33	0.26
18	Sulphates (SO4) (max)	mg/l	0.61	0.59	0.53	0.57	0.63	0.78	0.61
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	0.33	0.31	0.29	0.28	0.31	0.38	0.32
21	Nitrate as NO3, (max)	mg/l	2.8	2.6	3.1	3.3	3.4	3.9	3.2
22	Anionic Detergents (max)	mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
23	Total Coli form	MPN/ 100 ml	460	440	420	540	580	460	483

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15229 **Date: 10.10.2025**

SW2: Damsala Nallah Downstream Water									
Sl. No	**Parameter**	**Unit**	**APRIL-25**	**MAY-25**	**JUNE-25**	**JULY-25**	**AUG-25**	**SEPT-25**	**AVERAGE**
1	Colour (max)	Hazen	<10	<10	<10	15	15	<15	
2	pH Value	--	7.31	7.36	7.28	7.39	7.24	7.19	7.29
3	Suspended solids	mg/l	86	85	75	88	80	72	81
4	Dissolved Oxygen (minimum)	mg/l	4.8	4.6	4.6	4.8	4.6	4.8	4.7
5	Turbidity	NTU	13.1	14.1	12.4	15.2	14.1	13.5	13.7
6	Chloride (max)	mg/l	34.3	30.9	31.5	28.1	29.5	30.1	30.7
7	Total Dissolved Solids	mg/l	282	291	292	304	290	296	292
8	BOD (3) days at 270C (max)	mg/l	<1	<1	<1	2.0	2.5	2.8	2.4
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	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
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	0.27	0.25	0.27	0.32	0.31	0.37	0.29
18	Sulphates (SO4) (max)	mg/l	0.68	0.65	0.61	0.63	0.57	0.71	0.64
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	0.38	0.36	0.33	0.35	0.35	0.42	0.36
21	Nitrate as NO3, (max)	mg/l	3.0	3.1	3.8	4.1	4.6	4.4	3.8
22	Anionic Detergents (max)	mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
23	Total Coli form	MPN/ 100 ml	520	520	580	680	620	580	583

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15230 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
DRINKING WATER QUALITY ANALYSIS REPORT

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

DW1-Water Before Treatment at WTP									
Sl. No	Parameter	Unit	APRIL-25	MAY-25	JUNE-25	JULY-25	AUG-25	SEPT-25	AVERAGE
1	pH at 250C	--	7.28	7.23	7.19	7.15	7.21	7.12	7.19
2	Colour	Hazen	<5	<5	<5	<5	<5	<5	<5
3	Odour	--	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Total Hardness	mg/l	162	182.0	178	180.5	175	180.0	176.2
5	Turbidity	NTU	1.3	1.2	<1.0	1.2	<1.0	<1.0	1.23
6	Total Dissolved Solids	mg/l	346	368	378	395	342	298	354
7	Chloride as Cl	mg/l	31.6	28.9	29.2	27.8	29.5	26.8	28.9
8	Dissolve Oxygen	mg/l	4.4	4.2	4.4	4.8	4.2	4.4	4.4
9	Calcium as Ca	mg/l	34.2	33.8	34.2	33.7	32.9	34.7	33.9
10	Magnesium as Mg	mg/l	18.61	23.72	22.50	23.41	22.56	22.69	22.24
11	Sulphate as SO4	mg/l	6.3	6.1	5.9	6.1	5.1	5.8	5.8
12	Fluoride as F	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
13	Iron as Fe	mg/l	0.29	0.26	0.31	0.37	0.36	0.33	0.33
14	Total Chromium as Cr	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
15	Hexavalent Chromium as Cr+6	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
16	Mercury as Hg	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
17	Pesticide	mg/l	Absent	Absent	Absent	Absent	Absent	Absent	Absent
18	Total Coli form	MPN/100 ml	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1
19	Nickel (as Ni)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
20	Arsenic (as As)		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
21	Total alkalinity as CaCO3	mg/l	88	92	104	118	126	122	108
22	Manganese as Mn	mg/l	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
23	Free Residual Chlorine	mg/l	ND	ND	ND	ND	ND	ND	ND
24	Anionic Detergents	mg/l	ND	ND	ND	ND	ND	ND	ND
25	Ammonia (as total ammonia-N)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
26	Aluminium (as Al)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
27	Taste	mg/l	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
28	Anionic detergent as MBAS	mg/l	-	ND	ND	ND	ND	ND	ND
29	Electrical Conductivity at 250C	µS/cm	-	598	562	582	613	570	585
30	Copper as Cu	mg/l	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
31	Nitrate as NO3	mg/l	-	3.9	3.9	3.4	3.1	3.5	3.5
32	Phenolic Compounds as C6H5OH	mg/l	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
33	Cadmium as Cd	mg/l	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
34	Selenium as Se	mg/l	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
35	Cyanide as CN	mg/l	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
36	Lead as Pb	mg/l	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15231 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
DRINKING WATER QUALITY ANALYSIS REPORT

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

DW2- Water After Treatment at WTP									
Sl. No	Parameter	Unit	APRIL-25	MAY-25	JUNE-25	JULY-25	AUG-25	SEPT-25	AVERAGE
1	pH at 250C	--	7.21	7.17	7.05	7.09	7.05	7.34	7.15
2	Colour	Hazen	<5	<5	<5	<5	<5	<5	<5
3	Odour	--	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Total Hardness	mg/l	178	177.0	167	176	182	196.0	179
5	Turbidity	NTU	1.1	<1.0	1.1	<1.0	<1.0	<1.0	<1.0
6	Total Dissolved Solids	mg/l	320	329	332	362	388	340	345
7	Chloride as Cl	mg/l	29.6	30.1	30.7	29.2	30.1	30.1	29.9
8	Dissolve Oxygen	mg/l	4.8	4.6	4.8	4.2	4.5	4.1	4.5
9	Calcium as Ca	mg/l	32.9	31.9	30.9	31.9	35.1	36.2	33.1
10	Magnesium as Mg	mg/l	23.29	23.66	21.83	23.41	22.93	25.66	23.46
11	Sulphate as SO4	mg/l	5.8	5.5	6.1	6.8	6.3	6.1	6.1
12	Fluoride as F	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
13	Iron as Fe	mg/l	0.31	0.33	0.28	0.31	0.31	0.29	0.29
14	Total Chromium as Cr	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
15	Hexavalent Chromium as Cr+6	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
16	Mercury as Hg	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
17	Pesticide	mg/l	Absent	Absent	Absent	Absent	Absent	Absent	Absent
18	Total Coli form	MPN/100 ml	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1
19	Nickel (as Ni)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
20	Arsenic (as As)		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
21	Total alkalinity as CaCO3	mg/l	104	102	96	102	108	110	103
22	Manganese as Mn	mg/l	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
23	Free Residual Chlorine	mg/l	ND	ND	ND	ND	ND	ND	ND
24	Anionic Detergents	mg/l	ND	ND	ND	ND	ND	ND	ND
25	Ammonia (as total ammonia-N)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
26	Aluminium (as Al)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
27	Taste	mg/l	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
28	Anionic detergent as MBAS	mg/l	-	ND	ND	ND	ND	ND	ND
29	Electrical Conductivity at 250C	µS/cm	-	603	582	603	598	562	589
30	Copper as Cu	mg/l	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
31	Nitrate as NO3	mg/l	-	4.1	4.1	4.3	2.9	2.6	3.6
32	Phenolic Compounds as C6H5OH	mg/l	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
33	Cadmium as Cd	mg/l	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
34	Selenium as Se	mg/l	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
35	Cyanide as CN	mg/l	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
36	Lead as Pb	mg/l	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15232 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
DRINKING WATER QUALITY ANALYSIS REPORT

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

DW3- Water near Jagannath Temple									
Sl. No	Parameter	Unit	APRIL-25	MAY-25	JUNE-25	JULY-25	AUG-25	SEPT-25	AVERAGE
1	pH at 250C	--	7.19	7.25	7.22	7.28	7.26	6.98	7.19
2	Colour	Hazen	<5	<5	<5	<5	<5	<5	<5
3	Odour	--	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Total Hardness	mg/l	184	193.0	189	198.2	164	157.0	180
5	Turbidity	NTU	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0
6	Total Dissolved Solids	mg/l	361	397	382	388	394	361	380
7	Chloride as Cl	mg/l	30.2	31.5	30.5	26.5	26.7	29.6	29.1
8	Dissolve Oxygen	mg/l	4.2	4.4	4.2	4.9	4	4.3	4.3
9	Calcium as Ca	mg/l	33.6	36.8	35.6	35.2	34.6	34.1	34.9
10	Magnesium as Mg	mg/l	24.32	24.57	24.33	26.80	18.86	17.46	22.72
11	Sulphate as SO4	mg/l	5.6	5.9	6.5	7.2	6	6.6	6.3
12	Fluoride as F	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
13	Iron as Fe	mg/l	0.24	0.28	0.3	0.29	0.38	0.33	0.30
14	Total Chromium as Cr	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
15	Hexavalent Chromium as Cr+6	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
16	Mercury as Hg	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
17	Pesticide	mg/l	Absent	Absent	Absent	Absent	Absent	Absent	Absent
18	Total Coli form	MPN/100 ml	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1
19	Nickel (as Ni)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
20	Arsenic (as As)		<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
21	Total alkalinity as CaCO3	mg/l	100	96	98	96	116	106	102
22	Manganese as Mn	mg/l	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
23	Free Residual Chlorine	mg/l	ND	ND	ND	ND	ND	ND	ND
24	Anionic Detergents	mg/l	ND	ND	ND	ND	ND	ND	ND
25	Ammonia (as total ammonia-N)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
26	Aluminium (as Al)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
27	Taste	mg/l	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
28	Anionic detergent as MBAS	mg/l	-	ND	ND	ND	ND	ND	ND
29	Electrical Conductivity at 250C	µS/cm	-	578	579	594	620	610	596
30	Copper as Cu	mg/l	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
31	Nitrate as NO3	mg/l	-	4.2	4.2	3.3	3.5	3.1	3.6
32	Phenolic Compounds as C6H5OH	mg/l	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
33	Cadmium as Cd	mg/l	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
34	Selenium as Se	mg/l	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
35	Cyanide as CN	mg/l	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
36	Lead as Pb	mg/l	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15234 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)

DRINKING WATER QUALITY ANALYSIS REPORT

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

DW4-Water near Stack Yard									
Sl. No	Parameter	Unit	APRIL-25	MAY-25	JUNE-25	JULY-25	AUG-25	SEPT-25	AVERAGE
1	pH at 250C	--	7.3	7.36	7.31	7.24	7.11	7.24	7.26
2	Colour	Hazen	<5	<5	<5	<5	<5	<5	<5
3	Odour	--	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Total Hardness	mg/l	156	164.0	153	164.7	190	182.0	186
5	Turbidity	NTU	1.2	1.1	<1.0	<1.0	<1.0	<1.0	1.1
6	Total Dissolved Solids	mg/l	354	352	346	354	326	312	340
7	Chloride as Cl	mg/l	32.8	26.9	26.8	28.1	29.8	28.3	28.7
8	Dissolve Oxygen	mg/l	4	4.2	4.6	5.1	4.1	4.5	4.4
9	Calcium as Ca	mg/l	34.1	35.2	36.8	37.2	33.8	33.6	35.1
10	Magnesium as Mg	mg/l	17.22	18.49	14.85	17.45	25.66	23.84	19.85
11	Sulphate as SO4	mg/l	6	6.3	5.7	4.9	5.8	5.4	5.6
12	Fluoride as F	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
13	Iron as Fe	mg/l	0.28	0.31	0.23	0.28	0.42	0.38	0.31
14	Total Chromium as Cr	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
15	Hexavalent Chromium as Cr+6	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
16	Mercury as Hg	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
17	Pesticide	mg/l	Absent	Absent	Absent	Absent	Absent	Absent	Absent
18	Total Coli form	MPN/100 ml	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1
19	Nickel (as Ni)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
20	Arsenic (as As)	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
21	Total alkalinity as CaCO3	mg/l	96	98	110	108	120	109	106
22	Manganese as Mn	mg/l	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
23	Free Residual Chlorine as RFC	mg/l	ND	ND	ND	ND	ND	ND	ND
24	Anionic Detergents as MBAS	mg/l	ND	ND	ND	ND	ND	ND	ND
25	Ammonia (as total ammonia-n)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
26	Aluminium (as Al)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
27	Taste	mg/l	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
28	Anionic detergent as MBAS	mg/l	-	ND	ND	ND	ND	ND	ND
29	Electrical Conductivity at 250C	µS/cm	-	592	602	628	641	624	617
30	Copper as Cu	mg/l	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
31	Nitrate as NO3	mg/l	-	3.5	3.5	3.9	3.2	3.0	3.0
32	Phenolic Compounds as C6H5OH	mg/l	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
33	Cadmium as Cd	mg/l	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
34	Selenium as Se	mg/l	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
35	Cyanide as CN	mg/l	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
36	Lead as Pb	mg/l	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

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Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15235 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
DRINKING WATER QUALITY ANALYSIS REPORT

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

DW5- Water near COB Plant							
Sl. No	**Parameter**	**Unit**	**APRIL-25**	**MAY-25**	**JUNE-25**	**JULY-25**	**AVERAGE**
1	pH at 250C	--	7.26	7.30	7.27	7.32	728
2	Colour	Hazen	<5	<5	<5	<5	<5
3	Odour	--	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Total Hardness	mg/l	170	177.0	167	178	173
5	Turbidity	NTU	1.4	1.3	<1.0	<1.0	1.3
6	Total Dissolved Solids	mg/l	326	338	362	369	348
7	Chloride as Cl	mg/l	30.3	28.7	29.1	29.3	29.3
8	Dissolve Oxygen	mg/l	4.2	4.6	4.2	4.2	4.3
9	Calcium as Ca	mg/l	32.8	32.7	35.1	35.8	34.1
10	Magnesium as Mg	mg/l	21.41	23.17	19.28	21.53	21.34
11	Sulphate as SO4	mg/l	5.4	6.2	5.3	5.8	5.6
12	Fluoride as F	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
13	Iron as Fe	mg/l	0.27	0.35	0.28	0.33	0.30
14	Total Chromium as Cr	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05
15	Hexavalent Chromium as Cr+6	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
16	Mercury as Hg	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004
17	Pesticide	mg/l	Absent	Absent	Absent	Absent	Absent
18	Total Coli form	MPN/100 ml	<1.1	<1.1	<1.1	<1.1	<1.1
19	Nickel (as Ni)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
20	Arsenic (as As)	mg/1	<0.004	<0.004	<0.004	<0.004	<0.004
21	Total alkalinity as CaCO3	mg/l	90	92	96	114	98
22	Manganese as Mn	mg/l	<0.03	<0.03	<0.03	<0.03	<0.03
23	Free Residual Chlorine	mg/l	ND	ND	ND	ND	ND
24	Anionic Detergents	mg/l	ND	ND	ND	ND	ND
25	Ammonia (as total ammonia-N)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
26	Aluminium (as Al)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
27	Taste	mg/l	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
28	Anionic detergent as MBAS	mg/l	-	ND	ND	ND	ND
29	Electrical Conductivity at 250C	µS/cm	-	630	628	643	633
30	Copper as Cu	mg/l	-	<0.02	<0.02	<0.02	<0.02
31	Nitrate as NO3	mg/l	-	3.1	3.1	3.5	3.2
32	Phenolic Compounds as C6H5OH	mg/l	-	<0.001	<0.001	<0.001	<0.001
33	Cadmium as Cd	mg/l	-	<0.001	<0.001	<0.001	<0.001
34	Selenium as Se	mg/l	-	<0.01	<0.01	<0.01	<0.01
35	Cyanide as CN	mg/l	-	<0.05	<0.05	<0.05	<0.05
36	Lead as Pb	mg/l	-	<0.01	<0.01	<0.01	<0.01

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15236 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
DRINKING WATER QUALITY ANALYSIS REPORT

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

DW6- Water from TSL Canteen							
Sl. No	**Parameter**	**Unit**	**APRIL-25**	**MAY-25**	**JUNE-25**	**JULY-25**	**AVERAGE**
1	pH at 250C	--	7.23	7.24	7.23	7.19	7.22
2	Colour	Hazen	<5	<5	<5	<5	<5
3	Odour	--	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Total Hardness	mg/l	163	198.0	182	192	183
5	Turbidity	NTU	1.1	1.2	1.1	1.1	1.1
6	Total Dissolved Solids	mg/l	330	346	358	372	351
7	Chloride as Cl	mg/l	30.1	30.7	30.3	30.2	30.3
8	Dissolve Oxygen	mg/l	4.6	4.8	4.4	4.7	4.6
9	Calcium as Ca	mg/l	35.2	36.2	35.4	36.1	35.7
10	Magnesium as Mg	mg/l	18.25	26.15	22.75	24.75	22.97
11	Sulphate as SO4	mg/l	5.3	5.7	6.6	6.2	5.9
12	Fluoride as F	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
13	Iron as Fe	mg/l	0.23	0.26	0.26	0.32	0.26
14	Total Chromium as Cr	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05
15	Hexavalent Chromium as Cr+6	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
16	Mercury as Hg	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004
17	Pesticide	mg/l	Absent	Absent	Absent	Absent	Absent
18	Total Coli form	MPN/100 ml	<1.1	<1.1	<1.1	<1.1	<1.1
19	Nickel (as Ni)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
20	Arsenic (as As)	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004
21	Total alkalinity as CaCO3	mg/l	92	94	102	121	102
22	Manganese as Mn	mg/l	<0.03	<0.03	<0.03	<0.03	<0.03
23	Free Residual Chlorine as RFC	mg/l	ND	ND	ND	ND	ND
24	Anionic Detergents as MBAS	mg/l	ND	ND	ND	ND	ND
25	Ammonia (as total ammonia-n)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
26	Aluminium (as Al)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
27	Taste	mg/l	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
28	Anionic detergent as MBAS	mg/l	-	ND	ND	ND	ND
29	Electrical Conductivity at 250C	µS/cm	-	608	579	599	595
30	Copper as Cu	mg/l	-	<0.02	<0.02	<0.02	<0.02
31	Nitrate as NO3	mg/l	-	2.9	2.9	2.5	2.7
32	Phenolic Compounds as C6H5OH	mg/l	-	<0.001	<0.001	<0.001	<0.001
33	Cadmium as Cd	mg/l	-	<0.001	<0.001	<0.001	<0.001
34	Selenium as Se	mg/l	-	<0.01	<0.01	<0.01	<0.01
35	Cyanide as CN	mg/l	-	<0.05	<0.05	<0.05	<0.05
36	Lead as Pb	mg/l	-	<0.01	<0.01	<0.01	<0.01

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15237 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)

WASTE WATER QUALITY ANALYSIS REPORT

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

WW-1: ETP Inlet									
Sl No	Parameter	Unit	APRIL-25	MAY-25	JUNE-25	JULY-25	AUG-25	SEPT-25	AVERAGE
1	pH at 25.0C	-	7.15	6.84	7.1	7.12	7.19	7.12	7.08
2	Colour	Hazen	<15	<15	<15	<15	<15	<15	<15
3	Odour	--	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Temperature	°C	29.5	29.2	25.6	25.1	24.6	29.5	27.2
5	Suspended Solids	mg/l	38.77	38.87	39.13	38.9	36.2	40.1	38.6
6	Total Residual Chlorine	mg/l	0.22	0.23	0.21	0.22	0.21	0.19	0.21
7	Oil & Grease	mg/l	4.6	5.3	5.2	5.3	5.5	5.7	5.2
8	Biochemical Oxygen Demand as BOD at 270C for 3 days	mg/l	32	34	32	28	30	36	32
9	Chemical Oxygen Demand as COD	mg/l	138	142	152	112	128	152	137
10	Amm. Nitrogen (as N)	mg/l	2.14	2.11	2.14	2.09	2.02	2.16	2.11
11	Total Kjeldhal Nitrogen	mg/l	5.3	5.5	5.4	5.7	5.3	5.5	5.4
12	Free Ammonia	mg/l	0.022	0.023	0.021	0.022	0.021	0.025	0.022
13	Nitrate as NO3	mg/l	1.24	1.28	1.25	1.27	1.25	1.19	1.24
14	Diss. Phosphate (as P)	mg/l	0.53	0.51	0.49	0.53	0.51	0.53	0.51
15	Fluoride (as F)	mg/l	0.32	0.29	0.31	0.34	0.31	0.34	0.31
16	Sulphide (as S2-)	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	2.38	2.28	2.37	2.37	2.21	2.23	2.30
20	Mercury (as Hg)	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
21	Arsenic (as As)	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	3.09	2.98	2.68	2.66	2.58	2.49	2.74
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	0.34	0.26	0.31	0.35	0.37	0.4	0.3
31	Vanadium (as V)	mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
32	Bio-assay Test	%	0.91	0.9	91%	91%	90%	0.91	0.90
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

Report. No: Envlab/25-26/TR-15238 **Date: 10.10.2025**

WW-2: ETP Outlet									
Sl No	Parameter	Unit	APRIL-25	MAY-25	JUNE-25	JULY-25	AUG-25	SEPT-25	AVERAGE
1	pH at 25.0C	-	7.99	7.01	7.96	6.87	6.78	6.97	7.26
2	Colour	Hazen	<5	<5	<5	<5	<5	<5	<5
3	Odour	--	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Temperature	°C	30.1	30.5	26.1	27.5	28.1	31.5	28.9
5	Suspended Solids	mg/l	1.1	0.95	0.67	0.63	0.56	0.52	0.73
6	Total Residual Chlorine	mg/l	0.19	0.18	0.19	0.2	0.18	0.15	0.18
7	Oil & Grease	mg/l	4	4.4	<5.0	<5.0	<5.0	<5.0	<5.0
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	<4	<4	<4	<4	<4	<4	<4
10	Amm. Nitrogen (as N)	mg/l	0.65	0.68	0.66	0.69	0.66	0.72	0.67
11	Total Kjeldhal Nitrogen	mg/l	3.5	3.6	3.9	4	4.1	4.3	3.9
12	Free Ammonia	mg/l	0.018	0.019	0.018	0.019	0.018	0.021	0.019
13	Nitrate as NO3	mg/l	0.21	0.23	0.22	0.21	0.22	0.2	0.2
14	Diss. Phosphate (as P)	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
15	Fluoride (as F)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
16	Sulphide(as S2-)	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 (as As)	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	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
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	0.31	0.31	0.33	0.31	0.26	0.25	0.25
31	Vanadium(as V)	mg/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
32	Bio-assay Test	%	0.93	0.92	93%	90%	93%	0.92	0.92
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

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

WW3-Oil Separation Pit Inlet			
Sl. No	**Parameter**	**Unit**	**APRIL-25**
1	pH at 25.0C	-	7.31
2	Colour	Hazen	<20
3	Odour	--	Agreeable
4	Temperature	°C	28.9
5	Suspended Solids	mg/l	144
6	Total Residual Chlorine	mg/l	0.25
7	Oil & Grease	mg/l	5.4
8	Biochemical Oxygen Demand as BOD at 270C for 3 days	mg/l	28
9	Chemical Oxygen Demand as COD	mg/l	110
10	Amm. Nitrogen (as N)	mg/l	1.3
11	Total Kjeldhal Nitrogen	mg/l	4.6
12	Free Ammonia	mg/l	0.026
13	Nitrate as NO3	mg/l	1.21
14	Diss. Phosphate (as P)	mg/l	0.53
15	Fluoride (as F)	mg/l	0.29
16	Sulphide(as S2-)	mg/l	<0.05
17	Phenolic Compound	mg/l	<0.05
18	Cyanide (as CN)	mg/l	<0.01
19	Hexavalent Chromium as Cr +6	mg/l	<0.01
20	Mercury (as Hg)	mg/l	<0.004
21	Arsenic (as As)	mg/l	<0.004
22	Lead (as Pb)	mg/l	<0.02
23	Cadmium (as Cd)	mg/l	<0.01
24	Total Chromium (as Cr)	mg/l	0.34
25	Copper (as Cu)	mg/l	<0.02
26	Zinc (as Zn)	mg/l	<0.03
27	Selenium (as Se)	mg/l	<0.001
28	Nickel (as Ni)	mg/l	<0.1
29	Manganese (as Mn)	mg/l	<0.025
30	Iron (as Fe)	mg/l	0.26
31	Vanadium (as V)	mg/l	<0.2
32	Bio-assay Test	%	92%
33	Particle Size of Suspended Solids	µ	<850
34	Pesticide	mg/l	Absent

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15239 **Date: 10.10.2025**

WW4-Oil Separation Pit Outlet			
SlNo	**Parameter**	**Unit**	**APRIL-25**
1	pH at 25.0C	Unit	7.35
2	Colour	-	<5
3	Odour	Hazen	Agreeable
4	Temperature	--	30.1
5	Suspended Solids	°C	31.5
6	Total Residual Chlorine	mg/l	ND
7	Oil & Grease	mg/l	2.3
8	Biochemical Oxygen Demand as BOD at 270C for 3 days	mg/l	<1
9	Chemical Oxygen Demand as COD	mg/l	<4
10	Amm. Nitrogen (as N)	mg/l	0.52
11	Total Kjeldhal Nitrogen	mg/l	2.8
12	Free Ammonia	mg/l	0.022
13	Nitrate as NO3	mg/l	0.3
14	Diss. Phosphate (as P)	mg/l	<0.05
15	Fluoride (as F)	mg/l	<0.1
16	Sulphide (as S2-)	mg/l	<0.05
17	Phenolic Compound	mg/l	<0.05
18	Cyanide (as CN)	mg/l	<0.01
19	Hexavalent Chromium as Cr+6	mg/l	<0.01
20	Mercury (as Hg)	mg/l	<0.004
21	Arsenic (as As)	mg/l	<0.004
22	Lead (as Pb)	mg/l	<0.02
23	Cadmium (as Cd)	mg/l	<0.01
24	Total Chromium (as Cr)	mg/l	<0.05
25	Copper (as Cu)	mg/l	<0.02
26	Zinc (as Zn)	mg/l	<0.03
27	Selenium (as Se)	mg/l	<0.001
28	Nickel (as Ni)	mg/l	<0.1
29	Manganese (as Mn)	mg/l	<0.025
30	Iron (as Fe)	mg/l	0.31
31	Vanadium (as V)	mg/l	<0.2
32	Bio-assay Test	mg/l	0.91
33	Particle Size of Suspended Solids	%	<850
34	Pesticide	µ	Absent

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15240 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)

WASTE WATER QUALITY ANALYSIS REPORT

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

WW-5 : STP Inlet									
Sl. No	Parameter	Unit of Measurement	APRIL-25	MAY-25	JUNE-25	JULY-25	AUG-25	SEPT-25	AVERAGE
1	pH at 25^{0}C	-	7.31	7.23	7.26	7.31	7.26	7.24	7.26
2	Temperature	°C	32.5	30.2	26.5	25.8	28.2	30.3	28.9
3	Colour	Hazen	15	15	Agreeable	20	<20	<20	16.6
4	Odour	--	Agreeable	Agreeable	15	Agreeable	Agreeable	Agreeable	15
5	Turbidity	NTU	20.3	22.6	28.3	30.4	26.8	22.6	25.1
6	Suspended Solids	mg/l	54	57	64	68	72	81	66
7	Oil & Grease	mg/l	5.3	5.6	5.5	5.4	5.3	5.1	5.3
8	Biochemical Oxygen Demand as BOD at 27^{0}C For 3 days	mg/l	34	36	40	36	34	30	35
9	Chemical Oxygen Demand as COD	mg/l	142	168	170	154	149	138	153
10	Total Dissolved Solid as TDS	mg/l	188	180	186	192	188	197	188
11	Total Nitrogen as N	mg/l	7.6	7.4	7.1	7.3	6.9	6.2	7.8
12	Total Phosphorus	mg/l	0.56	0.58	0.56	0.58	0.55	0.58	0.56
13	Total Residual Chlorine	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
14	Fecal Coli form	MPN/100 ml	Absent	1080	1140	1060	1080	1120	1096

WW-6 : STP Outlet									
Sl. No	Parameter	Unit of Measurement	APRIL-25	MAY-25	JUNE-25	JULY-25	AUG-25	SEPT-25	AVERAGE
1	pH at 25^{0}C	-	7.44	7.41	7.48	7.50	7.48	7.35	7.44
2	Temperature	°C	29.2	28.6	25.1	26.1	30.3	31.5	28.4
3	Colour	Hazen	<10	<10	Agreeable	<15	<15	<15	<15
4	Odour	--	Agreeable	Agreeable	<15	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity	NTU	5.1	5.3	4.9	5.1	5.3	4.9	5.1
6	Suspended Solids	mg/l	1.34	1.31	1.44	1.53	1.43	1.35	1.4
7	Oil & Grease	mg/l	ND	ND	ND	ND	ND	ND	
8	Biochemical Oxygen Demand as BOD at 27^{0}C For 3 days	mg/l	5.6	5.2	5.4	4.8	4.2	4.4	4.9
9	Chemical Oxygen Demand as COD	mg/l	25	23	24	21	20	18.2	21.8
10	Total Dissolved Solid as TDS	mg/l	142	132	127	134	124	130	131
11	Total Nitrogen as N	mg/l	6.0	6.9	6.6	5.9	5.1	5	5.9
12	Total Phosphorus	mg/l	0.44	0.51	0.49	0.46	0.42	0.41	0.45
13	Total Residual Chlorine	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
14	Fecal Coli form	MPN/100 ml	Absent	ND	ND	ND	ND	ND	ND

Reviewed By

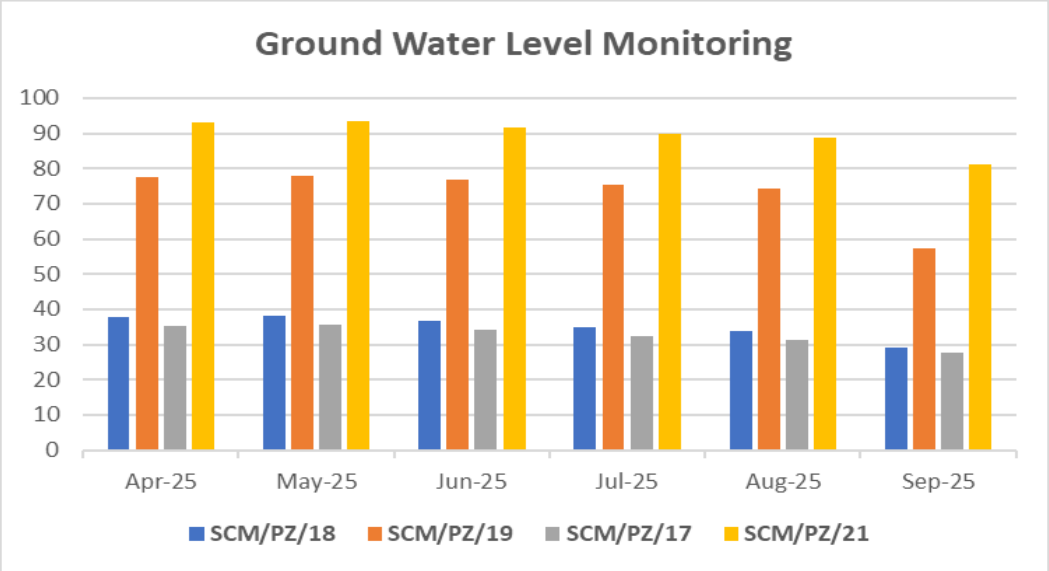
Approved By

Report. No: Envlab/25-26/TR-15241 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
GROUND WATER LEVEL MONITORING REPORT

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

Sl. No	Location	APRIL-25	MAY-25	JUNE-25	JULY-25	AUG-25	SEPT-25	AVERAGE
1	SCM/PZ/18	37.82	38.24	36.65	34.89	33.96	29.08	35.10
3	SCM/PZ/19	77.65	78.08	76.92	75.26	74.22	57.37	73.25
4	SCM/PZ/17	35.27	35.69	34.05	32.52	31.45	27.73	32.78
5	SCM/PZ/21	92.91	93.48	91.54	89.85	88.71	81.02	89.58



Reviewed By

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Report. No: Envlab/25-26/TR- 15242 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
PERSONAL DUST LEVEL MONITORING

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

Personal Respirable Dust (mg/m^3)							
Sl. No	Monitoring Location	APRIL-25	MAY-25	JULY-25	AUG-25	SEPT-25	AVERAGE
1	Bijay Behera	0.56	0.61	0.53	0.49	0.51	0.54
2	Samir Ranjan Lenka	--	--	--	0.52	0.53	0.52
3	Rudra narayan Naik	0.52	0.58	0.58	0.52	0.49	0.53

Respirable free Silica (%)							
Sl. No	Monitoring Location	APRIL-25	MAY-25	JULY-25	AUG-25	SEPT-25	AVERAGE
1	Bijay Behera	3.0	3.3	2.9	3.1	3.2	3.1
2	Samir Ranjan Lenka	--	--	--	2.9	3.15	3.0
3	Rudra narayan Naik	2.8	3.10	3.1	2.7	2.9	2.9

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15243 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
PERSONAL NOISE LEVEL MONITORING

Name & Address of the Client : Sukinda 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**	**APRIL-25**	**MAY-25**	**JULY-25**	**AVERAGE**
1	**Bijay Behera**	**58.6**	**60.7**	**59.6**	**59.6**
2	**Rudra Narayan Naik**	**55.2**	**54.9**	**51.3**	**53.8**

Reviewed By

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Report. No: Envlab/25-26/TR-15244 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
AMBIENT NOISE MONITORING REPORT

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

Noise Level in dB(A), Day Time								
COLONY AREA								
SI. No	Location	APRIL-25	MAY-25	JUNE-25	JULY-25	AUG-25	SEPT-25	AVERAGE
1	Main Gate	54.2	59.6	48.6	55.8	58.9	57.3	55.7
2	Market Complex	44.3	45.2	54.8	40.5	-	-	46.2
3	Security Control Room	39.5	41.5	44.6	39.7	42.4	41.7	41.5
4	Post office	36.1	40.1	38.2	38.9	-	-	38.3
5	Study Center	34.2	36.6	45.9	35.1	-	-	37.9
6	WTP	42.3	45.9	47.8	44.3	43.6	45.6	44.9
7	STP	41.5	43.8	43.9	42.6	-	-	42.9
8	Shishu Mandir	34.3	36.7	38.4	36.4	-	-	36.4
9	Children Park	32.6	39.5	34.8	38.9	-	-	36.4
10	3 RSF Quarters	35.9	33.8	35.9	32.9	-	-	34.6

Noise Level in dB(A), Night Time								
COLONY AREA								
SI. No	Location	APRIL-25	MAY-25	JUNE-25	JULY-25	AUG-25	SEPT-25	AVERAGE
1	Main Gate	47.1	53.1	45.2	48.2	42.5	45.1	46.8
2	Market Complex	37.2	40.7	52.7	38.3	-	-	42.2
3	Security Control Room	34.5	36.3	41.5	35.2	36.2	36.5	36.7
4	Post office	31.1	35.2	34.1	34.6	-	-	33.7
5	Study Center	29.5	31.5	40.8	30.9	-	-	33.1
6	WTP	37.6	41.7	43.2	41.5	38.3	40.2	40.4
7	STP	36.2	40.1	39.8	40.1	-	-	39
8	Shishu Mandir	30.2	31.2	32.8	30.9	-	-	31.2
9	Children Park	27.1	35.3	30.2	34.7	-	-	31.8
10	3 RSF Quarters	30.3	30.7	31.2	30.2	-	-	30.6

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15245 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
AMBIENT NOISE MONITORING REPORT

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

Noise Level in dB(A), Day Time						
MINING AREA						
SI. No	Location	APRIL-25	MAY-25	JUNE-25	JULY-25	AVERAGE
1	COB Plant Gate	60.2	68.9	67.8	67.8	66.1
2	Canteen	50.3	55.7	58.9	54.3	54.8
3	Work shop	61.5	64.1	65.8	64.3	63.9
4	Stack Yard Office	55.4	66.3	67.4	67.4	64.1
5	DG Shed	54.5	60.1	60.9	60.8	59
6	Mining Gate	63.6	67.4	68.2	68.1	66.8
7	View Point	57.2	65.4	66.2	66.2	63.7
8	Paradeep Gate	62.7	62.1	63.1	61.9	62.4
9	Near ETP	60.1	59.5	59.4	58.6	59.4
10	DECO Parking Area	49.5	50.3	54.4	51.4	51.4

Noise Level in dB(A), Night Time						
MINING AREA						
SI. No	Location	APRIL-25	MAY-25	JUNE-25	JULY-25	AVERAGE
1	COB Plant Gate	55.2	63.7	62.4	64.2	61.3
2	Canteen	45.3	50.2	50.6	51.3	49.3
3	Work shop	56.1	60.3	60.8	60.7	59.4
4	Stack Yard Office	51.5	61.7	61.8	62.3	59.3
5	DG Shed	49.6	54.5	55.4	55.3	53.7
6	Mining Gate	56.8	62.3	63.2	63.4	61.4
7	View Point	51.7	60.1	60.9	60.2	58.2
8	Paradeep Gate	57.4	60.2	60.2	60.1	59.4
9	Near ETP	55.8	54.6	53.2	53.2	54.2
10	DECO Parking Area	44.1	42.7	41.8	40.9	42.3

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15246 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
AMBIENT NOISE MONITORING REPORT (BUFFER ZONE)

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

Location	Noise Level in dB(A)		
	Day Time		
	JUNE-2025	SEP-25	AVERAGE
Kakudia Village	48.2	39.7	43.9
Kalarangi Village	41.4	41.5	41.4
Kharkhari Village	42.3	35.9	39.1
Kaliapani Village	53.6	40.1	46.8
Sukrangi Village	40.7	37.8	39.2
Laxmidharpur Village	40.3	36.5	38.4
Maruabil Village	43.5	39.8	41.6
Sendheswar Village	38.7	41.3	40
Birasal Village	46.6	40.7	43.6
Kanheipal Village	44.8	37.5	41.1

Location	Noise Level in dB(A)		
	Night Time		
	JUNE-2025	SEP-25	AVERAGE
Kakudia Village	31.8	33.5	32.6
Kalarangi Village	33.5	35.2	34.3
Kharkhari Village	32.6	31.3	31.9
Kaliapani Village	35.4	33.4	34.4
Sukrangi Village	30.5	32.1	31.3
Laxmidharpur Village	33.5	31.3	32.4
Maruabil Village	35.8	30.5	33.1
Sendheswar Village	31.3	32.8	32
Birasal Village	36.2	32.3	34.2
Kanheipal Village	34.7	31.5	33.1

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15247 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
FUGITIVE EMISSION MONITORING REPORT

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

Sampling Location	Parameter						
	SPM (µg/m^3)						
	APRIL-25	MAY-25	JUNE-25	JULY-25	AUG-25	SEPT-25	AVERAGE
F1: VIEW POINT	821	872	682	579	602	672	704.6
F2: STACK YARD	769	805	711	635	663	704	714.5
F3: COB PLANT	795	847	702	647	627	668	714.3
MoEF & CC Notification 03rd Feb, 2006	1200 µg/m^3						
Testing Method	Gravimetric Method						

Reviewed By

Approved By

:

Report. No: Envlab/25-26/TR-15248 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)

GROUND WATER LEVEL MONITORING REPORT (BUFFER ZONE)

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

Sample Type : **Ground Water Level**

Monitoring Location	Degree Direction	JUNE-2025	SEP-2025	AVERAGE
KAKUDIA	21^0 00'24.5''N 85^{0}46'17.9''E	6.14	1.62	3.88
KALARANGI	21^0 0'53.89''N 85^{0}43'43.56''E	3.53	1.81	2.67
KHARKHARI	21^{0}2'53.825''N 85^{0}43'36.166''E	4.1	1.5	2.8
KALIAPANI	21^0 2'37.7''N 85^{0}46'24.5''E	2.5	2.4	2.45
SUKURANGI	21^0 03'22.1''N 85^{0}47'47.2''E	2.52	0.63	1.57
LAXMIDHARPUR	20^0 59'15.8''N 85^{0}45'38.3''E	3.32	0.47	1.89
MARUABIL	21^0 02'59.6''N 85^{0}42'38.9''E	3.25	1.13	2.19
SANDHESWAR	21^0 1'23.4''N 85^{0}40'53.7''E	4.45	0.74	2.59
BIRASAL	20^0 59'60.5''N 85^{0}40'04.3''E	6.85	0.51	3.68
KANHEIPAL	20^0 57'4.0''N 85^{0}43'09.1''E	4.79	0.68	2.73

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15249 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
MINERALOGICAL COMPOSITION REPORT

Name & Address of the Client : **M/s. Sukinda Chromite Block, Tata Steel Kalarangiatta, Dist. Jajpur, Odisha**

Sample Type : **Mineralogical Composition**

Sl. No.	Test Results in %	View Point		
		JUNE-2025	SEP-2025	AVERAGE
1	Cr_2O_3	26.2	24.6	25.4
2	Fe_2O_3	9.9	10.5	10.2
3	MnO_2	3.1	2.9	3
4	SiO_2	20.1	21.2	20.6
5	Al_2O_3	12.5	13.2	12.8
6	MgO	12.1	12.9	12.5
7	CaO	3.3	2.9	3.1

Sl. No.	Test Results in %	COB Plant		
		JUNE-2025	SEP-2025	AVERAGE
1	Cr_2O_3	28.3	26.9	27.6
2	Fe_2O_3	9.2	9.8	9.5
3	MnO_2	3.8	3.8	3.8
4	SiO_2	19.8	19.6	19.7
5	Al_2O_3	11.7	11.8	11.7
6	MgO	11.5	12.4	11.9
7	CaO	3.1	2.9	3

Sl. No.	Test Results in %	Paradeep Gate		
		JUNE-2025	SEP-2025	AVERAGE
1	Cr_2O_3	26.7	26.1	26.4
2	Fe_2O_3	8.7	10.2	9.4
3	MnO_2	3.6	4.1	3.8
4	SiO_2	23.1	22.8	22.9
5	Al_2O_3	11.4	12.1	11.7
6	MgO	12.1	13.2	12.6
7	CaO	3.6	3.4	3.5

Sl. No.	Test Results in %	Stack Yard		
		JUNE-2025	SEP-2025	AVERAGE
1	Cr_2O_3	25.1	21.8	23.4
2	Fe_2O_3	9.8	10.1	9.9
3	MnO_2	3.8	3.5	3.6
4	SiO_2	24.5	21.2	22.8
5	Al_2O_3	11.2	10.9	11
6	MgO	13.2	13.5	13.3
7	CaO	3.8	3.4	3.6

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Report. No: Envlab/25-26/TR-15250 **Date: 10.10.2025**

Sl. No.	Test Results in %	Nickel Gate		
		JUNE-2025	SEP-2025	AVERAGE
1	Cr_2O_3	23.8	21.8	22.8
2	Fe_2O_3	10.2	10.1	10.1
3	MnO_2	3.2	3.5	3.3
4	SiO_2	23.8	21.2	22.5
5	Al_2O_3	10.7	10.9	10.8
6	MgO	13.5	13.5	13.5
7	CaO	4.1	3.4	3.7

Sl. No.	Test Results in %	Laboratory Top		
		JUNE-2025	SEP-2025	AVERAGE
1	Cr_2O_3	24.6	23.5	24
2	Fe_2O_3	10.5	10.1	10.3
3	MnO_2	3.5	3.7	3.6
4	SiO_2	21.9	20.8	21.3
5	Al_2O_3	12.3	11.4	11.8
6	MgO	12.7	13.2	12.9
7	CaO	3.5	3.3	3.4

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15251 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
GROUND WATER LEVEL ANALYSIS REPORT (PIEZOMETER)

Name & Address of the Client : Sukinda Chromite Block,
M/s Tata Steel Ltd., Kalarangiatta, Dist. Jajpur, Odisha

GW1: SCM/PZ/18							
Sl. No	Parameter	Unit of Measurement	APRIL-25	MAY-25	JUNE-25	JULY-25	AVERAGE
1	pH at 250C	--	7.31	7.31	7.33	7.29	7.31
2	Turbidity	NTU	1.3	1.1	<1.0	1.3	1.2
3	Total Hardness	mg/l	110	108	112	126	115
4	Alkalinity	mg/l	82	98	102	114	105
5	Total Dissolved Solids	mg/l	132	168	178	192	179
6	Chloride as Cl	mg/l	31.5	31.7	30.4	31.5	31.2
7	Residual free Chlorine	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
8	Dissolve Oxygen	mg/l	4.4	4.7	4.2	4.4	4.4
9	Calcium as Ca	mg/l	30.9	31.2	32.6	32.9	32.2
10	Magnesium as Mg	mg/l	8.0	7.3	7.4	10.7	8.5
11	Sulphate as SO4	mg/l	5.9	5.8	5.2	5.1	5.4
12	Fluoride as F	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
13	Nitrate as NO3	mg/l	1.26	1.22	1.18	1.24	1.21
14	Hexavalent Chromium as Cr+6	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
15	Cyanide (as CN)	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
16	Arsenic (as As)	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004
17	Iron as Fe	mg/l	0.23	0.29	0.26	0.31	0.29
18	Lead (as Pb)	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
19	Zinc (as Zn)	mg/l	<0.03	<0.03	<0.03	<0.03	<0.03
20	Copper (as Cu)	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
21	Manganese (as Mn)	mg/l	<0.025	<0.025	<0.025	<0.025	<0.025
22	Mercury as Hg	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004
23	Cadmium (as Cd)	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
24	Boron (as B)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
25	Selenium (as Se)	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
26	Mineral Oil	mg/l	<0.5	<0.5	<0.5	<0.5	<0.5
27	Taste	mg/l	-	Agreeable	Agreeable	Agreeable	Agreeable
28	Anionic detergent as MBAS	mg/l	-	ND	ND	ND	ND
29	Electrical Conductivity at 250C	µS/cm	-	268	296	306	290
30	Copper as Cu	mg/l	-	<0.02	<0.02	<0.02	<0.02
31	Nitrate as NO3	mg/l	-	3.5	2.9	3.0	3.13
32	Phenolic Compounds as C6H5OH	mg/l	-	<0.001	<0.001	<0.001	<0.001
33	Cadmium as Cd	mg/l	-	<0.001	<0.001	<0.001	<0.001
34	Selenium as Se	mg/l	-	<0.01	<0.01	<0.01	<0.01
35	Cyanide as CN	mg/l	-	<0.05	<0.05	<0.05	<0.05
36	Lead as Pb	mg/l	-	<0.01	<0.01	<0.01	<0.01

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15252 **Date: 10.10.2025**

GW2: SCM/PZ/19							
Sl. No	**Parameter**	**Unit of Measurement**	**APRIL-25**	**MAY-25**	**JUNE-25**	**JULY-25**	**AVERAGE**
1	pH at 25^0C	--	7.22	7.18	7.19	7.12	7.16
2	Turbidity	NTU	1.1	1.4	1.1	1.1	1.2
3	Total Hardness	mg/l	116	120	108	118	115
4	Alkalinity	mg/l	94	92	96	98	95
5	Total Dissolved Solids	mg/l	208	204	202	208	205
6	Chloride as Cl	mg/l	30.9	30.3	29.8	28.6	29.57
7	Residual free Chlorine	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
8	Dissolve Oxygen	mg/l	4.2	4.4	4.4	4.6	4.5
9	Calcium as Ca	mg/l	34.1	35.6	36.2	35.1	35.6
10	Magnesium as Mg	mg/l	7.5	7.6	4.3	7.4	6.4
11	Sulphate as SO4	mg/l	6.5	5.2	4.9	5.6	5.2
12	Fluoride as F	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
13	Nitrate as NO3	mg/l	1.12	1.18	1.24	1.13	1.18
14	Hexavalent Chromium as Cr+6	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
15	Cyanide (as CN)	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
16	Arsenic (as As)	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004
17	Iron as Fe	mg/l	0.28	0.30	0.31	0.30	0.30
18	Lead (as Pb)	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
19	Zinc (as Zn)	mg/l	<0.03	<0.03	<0.03	<0.03	<0.03
20	Copper (as Cu)	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
21	Manganese (as Mn)	mg/l	<0.025	<0.025	<0.025	<0.025	<0.025
22	Mercury as Hg	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004
23	Cadmium (as Cd)	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
24	Boron (as B)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
25	Selenium (as Se)	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
26	Mineral Oil	mg/l	<0.5	<0.5	<0.5	<0.5	<0.5
27	Taste	mg/l	-	Agreeable	Agreeable	Agreeable	Agreeable
28	Anionic detergent as MBAS	mg/l	-	ND	ND	ND	ND
29	Electrical Conductivity at 250C	µS/cm	-	381	347	354	361
30	Copper as Cu	mg/l	-	<0.02	<0.02	<0.02	<0.02
31	Nitrate as NO3	mg/l	-	2.8	2.6	2.2	2.53
32	Phenolic Compounds as C6H5OH	mg/l	-	<0.001	<0.001	<0.001	<0.001
33	Cadmium as Cd	mg/l	-	<0.001	<0.001	<0.001	<0.001
34	Selenium as Se	mg/l	-	<0.01	<0.01	<0.01	<0.01
35	Cyanide as CN	mg/l	-	<0.05	<0.05	<0.05	<0.05
36	Lead as Pb	mg/l	-	<0.01	<0.01	<0.01	<0.01

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15253 **Date: 10.10.2025**

GW3: SCM/PZ/17							
Sl. No	**Parameter**	**Unit of Measurement**	**APRIL-25**	**MAY-25**	**JUNE-25**	**JULY-25**	**AVERAGE**
1	pH at 250C	--	7.19	7.08	7.03	7.07	7.09
2	Turbidity	NTU	<1.0	1.1	1.3	1.2	1.2
3	Total Hardness	mg/l	130	128	124	130	128
4	Alkalinity	mg/l	82	90	92	102	91.5
5	Total Dissolved Solids	mg/l	119	185	190	215	177.3
6	Chloride as Cl	mg/l	29.7	32.6	29.2	29.4	30.2
7	Residual free Chlorine	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
8	Dissolve Oxygen	mg/l	4.6	4.8	4.6	4.8	4.7
9	Calcium as Ca	mg/l	32.6	33.8	33.9	33.2	33.4
10	Magnesium as Mg	mg/l	11.8	10.6	9.6	11.4	10.9
11	Sulphate as SO4	mg/l	7.0	6.6	6.3	6.8	6.7
12	Fluoride as F	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
13	Nitrate as NO3	mg/l	1.20	1.23	1.16	1.20	1.20
14	Hexavalent Chromium as Cr+6	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
15	Cyanide (as CN)	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
16	Arsenic (as As)	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004
17	Iron as Fe	mg/l	0.24	0.26	0.24	0.20	0.24
18	Lead (as Pb)	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
19	Zinc (as Zn)	mg/l	<0.03	<0.03	<0.03	<0.03	<0.03
20	Copper (as Cu)	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
21	Manganese (as Mn)	mg/l	<0.025	<0.025	<0.025	<0.025	<0.025
22	Mercury as Hg	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004
23	Cadmium (as Cd)	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
24	Boron (as B)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
25	Selenium (as Se)	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
26	Mineral Oil	mg/l	<0.5	<0.5	<0.5	<0.5	<0.5
27	Taste	mg/l	-	Agreeable	Agreeable	Agreeable	Agreeable
28	Anionic detergent as MBAS	mg/l	-	ND	ND	ND	ND
29	Electrical Conductivity at 250C	µS/cm	-	306	302	328	312
30	Copper as Cu	mg/l	-	<0.02	<0.02	<0.02	<0.02
31	Nitrate as NO3	mg/l	-	3.5	3.1	2.9	3.17
32	Phenolic Compounds as C6H5OH	mg/l	-	<0.001	<0.001	<0.001	<0.001
33	Cadmium as Cd	mg/l	-	<0.001	<0.001	<0.001	<0.001
34	Selenium as Se	mg/l	-	<0.01	<0.01	<0.01	<0.01
35	Cyanide as CN	mg/l	-	<0.05	<0.05	<0.05	<0.05
36	Lead as Pb	mg/l	-	<0.01	<0.01	<0.01	<0.01

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15254 **Date: 10.10.2025**

GW4: SCM/PZ/21							
Sl. No	**Parameter**	**Unit of Measurement**	**APRIL-25**	**MAY-25**	**JUNE-25**	**JULY-25**	**AVERAGE**
1	pH at 25^0C	--	7.24	7.21	7.21	7.23	7.22
2	Turbidity	NTU	1.2	1.2	1.2	1.4	1.25
3	Total Hardness	mg/l	122	134	130	122	127
4	Alkalinity	mg/l	100	102	105	112	104.8
5	Total Dissolved Solids	mg/l	220	197	185	193	198.8
6	Chloride as Cl	mg/l	30.2	31.8	31.3	32.1	31.4
7	Residual free Chlorine	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
8	Dissolve Oxygen	mg/l	4.4	4.2	4.2	5.0	4.45
9	Calcium as Ca	mg/l	30.8	34.2	34.4	34.1	33.4
10	Magnesium as Mg	mg/l	11.0	11.8	10.7	9.0	10.6
11	Sulphate as SO4	mg/l	5.2	5.6	5.1	4.9	5.2
12	Fluoride as F	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
13	Nitrate as NO3	mg/l	1.23	1.25	1.12	1.08	1.17
14	Hexavalent Chromium as Cr+6	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
15	Cyanide (as CN)	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
16	Arsenic (as As)	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004
17	Iron as Fe	mg/l	0.26	0.33	0.28	0.26	0.28
18	Lead (as Pb)	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
19	Zinc (as Zn)	mg/l	<0.03	<0.03	<0.03	<0.03	<0.03
20	Copper (as Cu)	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
21	Manganese (as Mn)	mg/l	<0.025	<0.025	<0.025	<0.025	<0.025
22	Mercury as Hg	mg/l	<0.004	<0.004	<0.004	<0.004	<0.004
23	Cadmium (as Cd)	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
24	Boron (as B)	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
25	Selenium (as Se)	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
26	Mineral Oil	mg/l	<0.5	<0.5	<0.5	<0.5	<0.5
27	Taste	mg/l	-	Agreeable	Agreeable	Agreeable	Agreeable
28	Anionic detergent as MBAS	mg/l	-	ND	ND	ND	ND
29	Electrical Conductivity at 250C	µS/cm	-	402	338	347	362
30	Copper as Cu	mg/l	-	<0.02	<0.02	<0.02	<0.02
31	Nitrate as NO3	mg/l	-	2.8	2.2	2.7	2.57
32	Phenolic Compounds as C6H5OH	mg/l	-	<0.001	<0.001	<0.001	<0.001
33	Cadmium as Cd	mg/l	-	<0.001	<0.001	<0.001	<0.001
34	Selenium as Se	mg/l	-	<0.01	<0.01	<0.01	<0.01
35	Cyanide as CN	mg/l	-	<0.05	<0.05	<0.05	<0.05
36	Lead as Pb	mg/l	-	<0.01	<0.01	<0.01	<0.01

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15255 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
GROUND WATER QUALITY ANALYSIS REPORT (BUFFER ZONE)

Name & Address of the Client : Sukinda Chromite Block,
M/s Tata Steel Ltd., Kalarangiatta, Dist. Jajpur, Odisha

GW1: Kaliapani Village					
Sl. No	**Parameter**	**Unit of Measurement**	**JUNE-25**	**SEP-25**	**AVERAGE**
01	Colour	Hazen	CL	CL	CL
02	Odour	--	Agreeable	Agreeable	Agreeable
03	Taste	mg/l	Agreeable	Agreeable	Agreeable
04	Turbidity	NTU	1.2	<1.0	1.2
05	Total Dissolved Solids as TDS	mg/l	112	130	121
06	pH at 250C	--	7.15	7.31	7.23
07	Aluminium (as Al)	mg/l	<0.1	<0.1	<0.1
08	Ammonia (as total ammonia-N)	mg/l	<0.1	<0.1	<0.1
09	Anionic Detergents	mg/l	<0.2	<0.2	<0.2
10	Barium as Ba	mg/l	<0.05	<0.05	<0.05
11	Boron as B	mg/l	<0.1	<0.1	<0.1
12	Calcium as Ca	mg/l	33.6	36.3	34.9
13	Chloride as Cl	mg/l	24.6	29.3	26.9
14	Copper as Cu	mg/l	<0.02	<0.02	<0.02
15	Fluoride as F	mg/l	0.25	0.23	0.24
16	Free Residual Chlorine	mg/l	ND	ND	ND
17	Iron as Fe	mg/l	0.22	0.33	0.27
18	Magnesium as Mg	mg/l	11.32	11.4	11.36
19	Manganese as Mn	mg/l	<0.025	<0.025	<0.025
20	Mineral Oil	mg/l	<0.5	<0.5	<0.5
21	Nitrate as NO3	mg/l	3.1	3.8	3.4
22	Phenolic Compound	mg/l	<0.05	<0.05	<0.05
23	Selenium as Se	mg/l	<0.001	<0.001	<0.001
24	Silver as Ag	mg/l	<0.1	<0.1	<0.1
25	Sulphate as SO4	mg/l	7.19	8.21	7.7
26	Sulphide	mg/l	<0.05	<0.05	<0.05
27	Total alkalinity as CaCO3	mg/l	94	98	96
28	Total Hardness	mg/l	108	120	114
29	Zinc as Zn	mg/l	<0.03	<0.03	<0.03
30	Cadmium as Cd	mg/l	<0.01	<0.01	<0.01
31	Cyanide as CN	mg/l	<0.05	<0.05	<0.05
32	Lead as Pb	mg/l	<0.02	<0.004	<0.004
33	Mercury as Hg	mg/l	<0.004	<0.002	<0.002
34	Molybdenum as Mo	mg/l	<0.05	<0.05	<0.05
35	Nickel (as Ni)	mg/l	<0.1	<0.1	<0.1
36	Pesticide	mg/l	Absent	Absent	Absent
37	Poly aromatic Hydrocarbon as PAH	mg/l	<0.0001	<0.0001	<0.0001
38	Arsenic as As	mg/l	<0.004	<0.004	<0.004
39	Total Chromium as Cr	mg/l	<0.01	<0.01	<0.01
40	Total Coliform	MPN/100 ml	<1.8	<1.8	<1.8

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15256 **Date: 10.10.2025**

GW2: Sukurangi Village					
Sl. No	**Parameter**	**Unit of Measurement**	**JUNE-25**	**SEP-25**	**AVERAGE**
01	Colour	Hazen	CL	CL	CL
02	Odour	--	Agreeable	Agreeable	Agreeable
03	Taste	mg/l	Agreeable	Agreeable	Agreeable
04	Turbidity	NTU	1.3	1.1	1.2
05	Total Dissolved Solids as TDS	mg/l	120	136	128
06	pH at 250C	--	7.2	7.23	7.21
07	Aluminium (as Al)	mg/l	<0.1	<0.1	<0.1
08	Ammonia (as total ammonia-N)	mg/l	<0.1	<0.1	<0.1
09	Anionic Detergents	mg/l	<0.2	<0.2	<0.2
10	Barium as Ba	mg/l	<0.05	<0.05	<0.05
11	Boron as B	mg/l	<0.1	<0.1	<0.1
12	Calcium as Ca	mg/l	35.4	31.6	33.5
13	Chloride as Cl	mg/l	28.6	24.2	26.4
14	Copper as Cu	mg/l	<0.02	<0.02	<0.02
15	Fluoride as F	mg/l	0.20	0.19	0.19
16	Free Residual Chlorine	mg/l	ND	ND	ND
17	Iron as Fe	mg/l	0.23	0.29	0.26
18	Magnesium as Mg	mg/l	14.24	12.5	13.3
19	Manganese as Mn	mg/l	<0.025	<0.025	<0.025
20	Mineral Oil	mg/l	<0.5	<0.5	<0.5
21	Nitrate as NO3	mg/l	2.6	4.3	3.4
22	Phenolic Compound	mg/l	<0.05	<0.05	<0.05
23	Selenium as Se	mg/l	<0.001	<0.001	<0.001
24	Silver as Ag	mg/l	<0.1	<0.1	<0.1
25	Sulphate as SO4	mg/l	7.46	6.53	6.99
26	Sulphide	mg/l	<0.05	<0.05	<0.05
27	Total alkalinity as CaCO3	mg/l	107	93	100
28	Total Hardness	mg/l	130	112	121
29	Zinc as Zn	mg/l	<0.03	<0.03	<0.03
30	Cadmium as Cd	mg/l	<0.01	<0.01	<0.01
31	Cyanide as CN	mg/l	<0.05	<0.05	<0.05
32	Lead as Pb	mg/l	<0.02	<0.004	<0.004
33	Mercury as Hg	mg/l	<0.004	<0.002	<0.002
34	Molybdenum as Mo	mg/l	<0.05	<0.05	<0.05
35	Nickel (as Ni)	mg/l	<0.1	<0.1	<0.1
36	Pesticide	mg/l	Absent	Absent	Absent
37	Poly aromatic Hydrocarbon as PAH	mg/l	<0.0001	<0.0001	<0.0001
38	Arsenic as As	mg/l	<0.004	<0.004	<0.004
39	Total Chromium as Cr	mg/l	<0.01	<0.01	<0.01
40	Total Coliform	MPN/100 ml	<1.8	<1.8	<1.8

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15257 **Date: 10.10.2025**

GW3: Kharkhari Village					
Sl. No	**Parameter**	**Unit of Measurement**	**JUNE-25**	**SEP-25**	**AVERAGE**
01	Colour	Hazen	CL	CL	CL
02	Odour	--	Agreeable	Agreeable	Agreeable
03	Taste	mg/l	Agreeable	Agreeable	Agreeable
04	Turbidity	NTU	<1.0	<1.0	<1.0
05	Total Dissolved Solids as TDS	mg/l	119	124	122
06	pH at 250C	--	7.29	7.22	7.26
07	Aluminium (as Al)	mg/l	<0.1	<0.1	<0.1
08	Ammonia (as total ammonia-N)	mg/l	<0.1	<0.1	<0.1
09	Anionic Detergents	mg/l	<0.2	<0.2	<0.2
10	Barium as Ba	mg/l	<0.05	<0.05	<0.05
11	Boron as B	mg/l	<0.1	<0.1	<0.1
12	Calcium as Ca	mg/l	32.6	36.5	34.6
13	Chloride as Cl	mg/l	30.1	26.9	28.5
14	Copper as Cu	mg/l	<0.02	<0.02	<0.02
15	Fluoride as F	mg/l	0.19	0.19	0.19
16	Free Residual Chlorine	mg/l	ND	ND	ND
17	Iron as Fe	mg/l	0.24	0.33	0.29
18	Magnesium as Mg	mg/l	12.4	14.30	13.4
19	Manganese as Mn	mg/l	<0.025	<0.025	<0.025
20	Mineral Oil	mg/l	<0.5	<0.5	<0.5
21	Nitrate as NO3	mg/l	3.5	3.1	3.3
22	Phenolic Compound	mg/l	<0.05	<0.05	<0.05
23	Selenium as Se	mg/l	<0.001	<0.001	<0.001
24	Silver as Ag	mg/l	<0.1	<0.1	<0.1
25	Sulphate as SO4	mg/l	7.03	7.22	7.13
26	Sulphide	mg/l	<0.05	<0.05	<0.05
27	Total alkalinity as CaCO3	mg/l	96	112	104
28	Total Hardness	mg/l	126	126	126
29	Zinc as Zn	mg/l	<0.03	<0.03	<0.03
30	Cadmium as Cd	mg/l	<0.01	<0.01	<0.01
31	Cyanide as CN	mg/l	<0.05	<0.05	<0.05
32	Lead as Pb	mg/l	<0.02	<0.02	<0.02
33	Mercury as Hg	mg/l	<0.004	<0.004	<0.004
34	Molybdenum as Mo	mg/l	<0.05	<0.05	<0.05
35	Nickel (as Ni)	mg/l	<0.1	<0.1	<0.1
36	Pesticide	mg/l	Absent	Absent	Absent
37	Poly aromatic Hydrocarbon as PAH	mg/l	<0.0001	<0.0001	<0.0001
38	Arsenic as As	mg/l	<0.004	<0.004	<0.004
39	Total Chromium as Cr	mg/l	<0.01	<0.01	<0.01
40	Total Coliform	MPN /100 ml	<1.8	<1.8	<1.8

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15258 **Date: 10.10.2025**

GW4: Kalarangi Village					
Sl. No	**Parameter**	**Unit of Measurement**	**JUNE-25**	**SEP-25**	**AVERAGE**
01	Colour	Hazen	CL	CL	CL
02	Odour	--	Agreeable	Agreeable	Agreeable
03	Taste	mg/l	Agreeable	Agreeable	Agreeable
04	Turbidity	NTU	1.3	<1.0	1.3
05	Total Dissolved Solids as TDS	mg/l	124	124	124
06	pH at 250C	--	7.12	7.28	7.2
07	Aluminium (as Al)	mg/l	<0.1	<0.1	<0.1
08	Ammonia (as total ammonia-N)	mg/l	<0.1	<0.1	<0.1
09	Anionic Detergents	mg/l	<0.2	<0.2	<0.2
10	Barium as Ba	mg/l	<0.05	<0.05	<0.05
11	Boron as B	mg/l	<0.1	<0.1	<0.1
12	Calcium as Ca	mg/l	30.9	33.9	32.4
13	Chloride as Cl	mg/l	29.6	25.3	27.4
14	Copper as Cu	mg/l	<0.02	<0.02	<0.02
15	Fluoride as F	mg/l	0.21	0.21	0.21
16	Free Residual Chlorine	mg/l	ND	ND	ND
17	Iron as Fe	mg/l	0.26	0.25	0.25
18	Magnesium as Mg	mg/l	9.7	10.9	10.3
19	Manganese as Mn	mg/l	<0.025	<0.025	<0.025
20	Mineral Oil	mg/l	<0.5	<0.5	<0.5
21	Nitrate as NO3	mg/l	3.1	3.3	3.2
22	Phenolic Compound	mg/l	<0.05	<0.05	<0.05
23	Selenium as Se	mg/l	<0.001	<0.001	<0.001
24	Silver as Ag	mg/l	<0.1	<0.1	<0.1
25	Sulphate as SO4	mg/l	6.24	6.35	6.2
26	Sulphide	mg/l	<0.05	<0.05	<0.05
27	Total alkalinity as CaCO3	mg/l	86	108	97
28	Total Hardness	mg/l	114	108	111
29	Zinc as Zn	mg/l	<0.03	<0.03	<0.03
30	Cadmium as Cd	mg/l	<0.01	<0.01	<0.01
31	Cyanide as CN	mg/l	<0.01	<0.01	<0.01
32	Lead as Pb	mg/l	<0.02	<0.02	<0.02
33	Mercury as Hg	mg/l	<0.004	<0.004	<0.004
34	Molybdenum as Mo	mg/l	<0.05	<0.05	<0.05
35	Nickel (as Ni)	mg/l	<0.1	<0.1	<0.1
36	Pesticide	mg/l	Absent	Absent	Absent
37	Poly aromatic Hydrocarbon as PAH	mg/l	<0.0001	<0.0001	<0.0001
38	Arsenic as As	mg/l	<0.004	<0.004	<0.004
39	Total Chromium as Cr	mg/l	<0.01	<0.01	<0.01
40	Total Coliform	MPN /100 ml	<1.8	<1.8	<1.8

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15259 **Date: 10.10.2025**

GW5: Kakudia Village					
Sl. No	**Parameter**	**Unit of Measurement**	**JUNE-25**	**SEP-25**	**AVERAGE**
01	Colour	Hazen	CL	CL	CL
02	Odour	--	Agreeable	Agreeable	Agreeable
03	Taste	mg/l	Agreeable	Agreeable	Agreeable
04	Turbidity	NTU	1.5	<1.0	1.5
05	Total Dissolved Solids as TDS	mg/l	138	124	131
06	pH at 250C	--	7.35	7.22	7.28
07	Aluminium (as Al)	mg/l	<0.1	<0.1	<0.1
08	Ammonia (as total ammonia-N)	mg/l	<0.1	<0.1	<0.1
09	Anionic Detergents	mg/l	<0.2	<0.2	<0.2
10	Barium as Ba	mg/l	<0.05	<0.05	<0.05
11	Boron as B	mg/l	<0.1	<0.1	<0.1
12	Calcium as Ca	mg/l	34.2	36.5	35.3
13	Chloride as Cl	mg/l	28.2	26.9	27.5
14	Copper as Cu	mg/l	<0.02	<0.02	<0.02
15	Fluoride as F	mg/l	0.23	0.19	0.21
16	Free Residual Chlorine	mg/l	ND	ND	ND
17	Iron as Fe	mg/l	0.19	0.33	0.26
18	Magnesium as Mg	mg/l	14.5	14.30	14.4
19	Manganese as Mn	mg/l	<0.025	<0.025	<0.025
20	Mineral Oil	mg/l	<0.5	<0.5	<0.5
21	Nitrate as NO3	mg/l	4.0	3.1	3.5
22	Phenolic Compound	mg/l	<0.05	<0.05	<0.05
23	Selenium as Se	mg/l	<0.001	<0.001	<0.001
24	Silver as Ag	mg/l	<0.1	<0.1	<0.1
25	Sulphate as SO4	mg/l	5.69	7.22	6.4
26	Sulphide	mg/l	<0.05	<0.05	<0.05
27	Total alkalinity as CaCO3	mg/l	92	112	102
28	Total Hardness	mg/l	130	126	128
29	Zinc as Zn	mg/l	<0.03	<0.03	<0.03
30	Cadmium as Cd	mg/l	<0.01	<0.01	<0.01
31	Cyanide as CN	mg/l	<0.01	<0.05	<0.05
32	Lead as Pb	mg/l	<0.02	<0.02	<0.02
33	Mercury as Hg	mg/l	<0.004	<0.004	<0.004
34	Molybdenum as Mo	mg/l	<0.05	<0.05	<0.05
35	Nickel (as Ni)	mg/l	<0.1	<0.1	<0.1
36	Pesticide	mg/l	Absent	Absent	Absent
37	Poly aromatic Hydrocarbon as PAH	mg/l	<0.0001	<0.0001	<0.0001
38	Arsenic as As	mg/l	<0.004	<0.004	<0.004
39	Total Chromium as Cr	mg/l	<0.01	<0.01	<0.01
40	Total Coliform	MPN /100 ml	<1.8	<1.8	<1.8

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15260 **Date: 10.10.2025**

GW6: Maruabil Village					
Sl. No	**Parameter**	**Unit of Measurement**	**JUNE-25**	**SEP-25**	**AVERAGE**
01	Colour	Hazen	CL	CL	CL
02	Odour	--	Agreeable	Agreeable	Agreeable
03	Taste	mg/l	Agreeable	Agreeable	Agreeable
04	Turbidity	NTU	1.1	1.1	1.1
05	Total Dissolved Solids as TDS	mg/l	128	128	128
06	pH at 250C	--	7.17	7.08	7.12
07	Aluminium (as Al)	mg/l	<0.1	<0.1	<0.1
08	Ammonia (as total ammonia-N)	mg/l	<0.1	<0.1	<0.1
09	Anionic Detergents	mg/l	<0.2	<0.2	<0.2
10	Barium as Ba	mg/l	<0.05	<0.05	<0.05
11	Boron as B	mg/l	<0.1	<0.1	<0.1
12	Calcium as Ca	mg/l	32.9	31.8	32.3
13	Chloride as Cl	mg/l	28.3	30.1	29.2
14	Copper as Cu	mg/l	<0.02	<0.02	<0.02
15	Fluoride as F	mg/l	0.21	0.16	0.18
16	Free Residual Chlorine	mg/l	ND	ND	ND
17	Iron as Fe	mg/l	0.25	0.31	0.28
18	Magnesium as Mg	mg/l	8.1	12.4	10.2
19	Manganese as Mn	mg/l	<0.025	<0.025	<0.025
20	Mineral Oil	mg/l	<0.5	<0.5	<0.5
21	Nitrate as NO3	mg/l	3.1	3.6	3.3
22	Phenolic Compound	mg/l	<0.05	<0.05	<0.05
23	Selenium as Se	mg/l	<0.001	<0.001	<0.001
24	Silver as Ag	mg/l	<0.1	<0.1	<0.1
25	Sulphate as SO4	mg/l	6.85	6.08	6.4
26	Sulphide	mg/l	<0.05	<0.05	<0.05
27	Total alkalinity as CaCO3	mg/l	86	82	84
28	Total Hardness	mg/l	104	126	115
29	Zinc as Zn	mg/l	<0.03	<0.03	<0.03
30	Cadmium as Cd	mg/l	<0.01	<0.01	<0.01
31	Cyanide as CN	mg/l	<0.05	<0.01	<0.01
32	Lead as Pb	mg/l	<0.004	<0.02	<0.02
33	Mercury as Hg	mg/l	<0.002	<0.004	<0.004
34	Molybdenum as Mo	mg/l	<0.05	<0.05	<0.05
35	Nickel (as Ni)	mg/l	<0.1	<0.1	<0.1
36	Pesticide	mg/l	Absent	Absent	Absent
37	Poly aromatic Hydrocarbon as PAH	mg/l	<0.0001	<0.0001	<0.0001
38	Arsenic as As	mg/l	<0.004	<0.004	<0.004
39	Total Chromium as Cr	mg/l	<0.01	<0.01	<0.01
41	Total Coliform	MPN /100 ml	<1.8	<1.8	<1.8

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15261 **Date: 10.10.2025**

GW7: Sendheswar Village					
Sl. No	**Parameter**	**Unit of Measurement**	**JUNE-25**	**SEP-25**	**AVERAGE**
01	Colour	Hazen	CL	CL	CL
02	Odour	--	Agreeable	Agreeable	Agreeable
03	Taste	mg/l	Agreeable	Agreeable	Agreeable
04	Turbidity	NTU	<1.0	<1.0	<1.0
05	Total Dissolved Solids as TDS	mg/l	124	120	122
06	pH at 250C	--	7.29	7.33	7.31
07	Aluminium (as Al)	mg/l	<0.1	<0.1	<0.1
08	Ammonia (as total ammonia-N)	mg/l	<0.1	<0.1	<0.1
09	Anionic Detergents	mg/l	<0.2	<0.2	<0.2
10	Barium as Ba	mg/l	<0.05	<0.05	<0.05
11	Boron as B	mg/l	<0.1	<0.1	<0.1
12	Calcium as Ca	mg/l	33.8	34.6	34.2
13	Chloride as Cl	mg/l	29.4	25.4	27.4
14	Copper as Cu	mg/l	<0.02	<0.02	<0.02
15	Fluoride as F	mg/l	0.26	0.21	0.23
16	Free Residual Chlorine	mg/l	ND	ND	ND
17	Iron as Fe	mg/l	0.21	0.29	0.25
18	Magnesium as Mg	mg/l	12.3	15.7	14
19	Manganese as Mn	mg/l	<0.025	<0.025	<0.025
20	Mineral Oil	mg/l	<0.5	<0.5	<0.5
21	Nitrate as NO3	mg/l	2.6	3.9	3.2
22	Phenolic Compound	mg/l	<0.05	<0.05	<0.05
23	Selenium as Se	mg/l	<0.001	<0.001	<0.001
24	Silver as Ag	mg/l	<0.1	<0.1	<0.1
25	Sulphate as SO4	mg/l	9.11	6.34	7.72
26	Sulphide	mg/l	<0.05	<0.05	<0.05
27	Total alkalinity as CaCO3	mg/l	91	89	90
28	Total Hardness	mg/l	124	128	126
29	Zinc as Zn	mg/l	<0.03	<0.03	<0.03
30	Cadmium as Cd	mg/l	<0.01	<0.01	<0.01
31	Cyanide as CN	mg/l	<0.05	<0.05	<0.05
32	Lead as Pb	mg/l	<0.004	<0.02	<0.02
33	Mercury as Hg	mg/l	<0.002	<0.004	<0.004
34	Molybdenum as Mo	mg/l	<0.05	<0.05	<0.05
35	Nickel (as Ni)	mg/l	<0.1	<0.1	<0.1
36	Pesticide	mg/l	Absent	Absent	Absent
37	Poly aromatic Hydrocarbon as PAH	mg/l	<0.0001	<0.0001	<0.0001
38	Arsenic as As	mg/l	<0.004	<0.004	<0.004
39	Total Chromium as Cr	mg/l	<0.01	<0.01	<0.01
40	Total Coliform	MPN /100 ml	<1.8	<1.8	<1.8

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15262 **Date: 10.10.2025**

GW8: Birasal Village					
Sl. No	**Parameter**	**Unit of Measurement**	**JUNE-25**	**SEP-25**	**AVERAGE**
01	Colour	Hazen	CL	CL	CL
02	Odour	--	Agreeable	Agreeable	Agreeable
03	Taste	mg/l	Agreeable	Agreeable	Agreeable
04	Turbidity	NTU	1.3	<1.0	1.3
05	Total Dissolved Solids as TDS	mg/l	113	126	119.5
06	pH at 250C	--	7.33	7.15	7.24
07	Aluminium (as Al)	mg/l	<0.1	<0.1	<0.1
08	Ammonia (as total ammonia-N)	mg/l	<0.1	<0.1	<0.1
09	Anionic Detergents	mg/l	<0.2	<0.2	<0.2
10	Barium as Ba	mg/l	<0.05	<0.05	<0.05
11	Boron as B	mg/l	<0.1	<0.1	<0.1
12	Calcium as Ca	mg/l	34.5	30.9	32.7
13	Chloride as Cl	mg/l	29	26.3	27.6
14	Copper as Cu	mg/l	<0.02	<0.02	<0.02
15	Fluoride as F	mg/l	0.23	0.22	0.22
16	Free Residual Chlorine	mg/l	ND	ND	ND
17	Iron as Fe	mg/l	0.16	0.38	0.27
18	Magnesium as Mg	mg/l	11.6	11.50	11.55
19	Manganese as Mn	mg/l	<0.025	<0.025	<0.025
20	Mineral Oil	mg/l	<0.5	<0.5	<0.5
21	Nitrate as NO3	mg/l	3.1	3.5	3.3
22	Phenolic Compound	mg/l	<0.05	<0.05	<0.05
23	Selenium as Se	mg/l	<0.001	<0.001	<0.001
24	Silver as Ag	mg/l	<0.1	<0.1	<0.1
25	Sulphate as SO4	mg/l	6.53	7.06	6.79
26	Sulphide	mg/l	<0.05	<0.05	<0.05
27	Total alkalinity as CaCO3	mg/l	95	96	95.5
28	Total Hardness	mg/l	120	113	116.5
29	Zinc as Zn	mg/l	<0.03	<0.03	<0.03
30	Cadmium as Cd	mg/l	<0.01	<0.01	<0.01
31	Cyanide as CN	mg/l	<0.01	<0.05	<0.05
32	Lead as Pb	mg/l	<0.02	<0.02	<0.02
33	Mercury as Hg	mg/l	<0.004	<0.004	<0.004
34	Molybdenum as Mo	mg/l	<0.05	<0.05	<0.05
35	Nickel (as Ni)	mg/l	<0.1	<0.1	<0.1
36	Pesticide	mg/l	Absent	Absent	Absent
37	Poly aromatic Hydrocarbon as PAH	mg/l	<0.0001	<0.0001	<0.0001
38	Arsenic as As	mg/l	<0.004	<0.004	<0.004
39	Total Chromium as Cr	mg/l	<0.01	<0.01	<0.01
41	Total Coliform	MPN /100 ml	<1.8	<1.8	<1.8

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15263 **Date: 10.10.2025**

GW9: Kanheipal Village					
Sl. No	**Parameter**	**Unit of Measurement**	**JUNE-25**	**SEP-25**	**AVERAGE**
01	Colour	Hazen	CL	CL	CL
02	Odour	--	Agreeable	Agreeable	Agreeable
03	Taste	mg/l	Agreeable	Agreeable	Agreeable
04	Turbidity	NTU	1.5	1.2	1.3
05	Total Dissolved Solids as TDS	mg/l	108	108	1.08
06	pH at 250C	--	7.21	7.16	7.18
07	Aluminium (as Al)	mg/l	<0.1	<0.1	<0.1
08	Ammonia (as total ammonia-N)	mg/l	<0.1	<0.1	<0.1
09	Anionic Detergents	mg/l	<0.2	<0.2	<0.2
10	Barium as Ba	mg/l	<0.05	<0.05	<0.05
11	Boron as B	mg/l	<0.1	<0.1	<0.1
12	Calcium as Ca	mg/l	36.1	35.2	35.6
13	Chloride as Cl	mg/l	30.2	28.2	29.2
14	Copper as Cu	mg/l	<0.02	<0.02	<0.02
15	Fluoride as F	mg/l	0.22	0.15	0.18
16	Free Residual Chlorine	mg/l	ND	ND	ND
17	Iron as Fe	mg/l	0.21	0.32	0.26
18	Magnesium as Mg	mg/l	9.9	7.9	8.9
19	Manganese as Mn	mg/l	<0.025	<0.025	<0.025
20	Mineral Oil	mg/l	<0.5	<0.5	<0.5
21	Nitrate as NO3	mg/l	3.5	4.4	3.9
22	Phenolic Compound	mg/l	<0.05	<0.05	<0.05
23	Selenium as Se	mg/l	<0.001	<0.001	<0.001
24	Silver as Ag	mg/l	<0.1	<0.1	<0.1
25	Sulphate as SO4	mg/l	7.82	7.09	7.4
26	Sulphide	mg/l	<0.05	<0.05	<0.05
27	Total alkalinity as CaCO3	mg/l	90	104	97
28	Total Hardness	mg/l	116	103	109.5
29	Zinc as Zn	mg/l	<0.03	<0.03	<0.03
30	Cadmium as Cd	mg/l	<0.01	<0.01	<0.01
31	Cyanide as CN	mg/l	<0.01	<0.05	<0.05
32	Lead as Pb	mg/l	<0.02	<0.02	<0.02
33	Mercury as Hg	mg/l	<0.004	<0.004	<0.004
34	Molybdenum as Mo	mg/l	<0.05	<0.05	<0.05
35	Nickel (as Ni)	mg/l	<0.1	<0.1	<0.1
36	Pesticide	mg/l	Absent	Absent	Absent
37	Poly aromatic Hydrocarbon as PAH	mg/l	<0.0001	<0.0001	<0.0001
38	Arsenic as As	mg/l	<0.004	<0.004	<0.004
39	Total Chromium as Cr	mg/l	<0.01	<0.01	<0.01
41	Total Coliform	MPN /100 ml	<1.8	<1.8	<1.8

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15264 **Date: 10.10.2025**

GW10: Laxmidharpur Village					
Sl. No	**Parameter**	**Unit of Measurement**	**JUNE-25**	**SEP-25**	**AVERAGE**
01	Colour	Hazen	CL	CL	CL
02	Odour	--	Agreeable	Agreeable	Agreeable
03	Taste	mg/l	Agreeable	Agreeable	Agreeable
04	Turbidity	NTU	1.1	1.1	1.1
05	Total Dissolved Solids as TDS	mg/l	116	112	114
06	pH at 250C	--	7.23	7.23	7.23
07	Aluminium (as Al)	mg/l	<0.1	<0.1	<0.1
08	Ammonia (as total ammonia-N)	mg/l	<0.1	<0.1	<0.1
09	Anionic Detergents	mg/l	<0.2	<0.2	<0.2
10	Barium as Ba	mg/l	<0.05	<0.05	<0.05
11	Boron as B	mg/l	<0.1	<0.1	<0.1
12	Calcium as Ca	mg/l	36.1	34.4	35.2
13	Chloride as Cl	mg/l	26.7	26.1	26.4
14	Copper as Cu	mg/l	<0.02	<0.02	<0.02
15	Fluoride as F	mg/l	0.16	0.16	0.16
16	Free Residual Chlorine	mg/l	ND	ND	ND
17	Iron as Fe	mg/l	0.21	0.24	0.22
18	Magnesium as Mg	mg/l	12.7	11.9	12.3
19	Manganese as Mn	mg/l	<0.025	<0.025	<0.025
20	Mineral Oil	mg/l	<0.5	<0.5	<0.5
21	Nitrate as NO3	mg/l	3.8	3.9	3.8
22	Phenolic Compound	mg/l	<0.05	<0.05	<0.05
23	Selenium as Se	mg/l	<0.001	<0.001	<0.001
24	Silver as Ag	mg/l	<0.1	<0.1	<0.1
25	Sulphate as SO4	mg/l	7.33	7.42	7.37
26	Sulphide	mg/l	<0.05	<0.05	<0.05
27	Total alkalinity as CaCO3	mg/l	113	112	112.5
28	Total Hardness	mg/l	119	114	116.5
29	Zinc as Zn	mg/l	<0.03	<0.03	<0.03
30	Cadmium as Cd	mg/l	<0.01	<0.01	<0.01
31	Cyanide as CN	mg/l	<0.05	<0.01	<0.01
32	Lead as Pb	mg/l	<0.02	<0.02	<0.02
33	Mercury as Hg	mg/l	<0.004	<0.004	<0.004
34	Molybdenum as Mo	mg/l	<0.05	<0.05	<0.05
35	Nickel (as Ni)	mg/l	<0.1	<0.1	<0.1
36	Pesticide	mg/l	Absent	Absent	Absent
37	Poly aromatic Hydrocarbon as PAH	mg/l	<0.0001	<0.0001	<0.0001
38	Arsenic as As	mg/l	<0.004	<0.004	<0.004
39	Total Chromium as Cr	mg/l	<0.01	<0.01	<0.01
41	Total Coliform	MPN /100 ml	<1.8	<1.8	<1.8

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15265 **Date: 10.10.2025**

SIX MONTHLY COMPLIANCE REPORT (APRIL-25 TO SEPT-25)
SOIL QUALITY ANALYSIS REPORT

Name & Address of the Client : Sukinda Chromite Block,
M/s Tata Steel Ltd., Kalarangiatta, Dist. Jajpur, Odisha

S-1: Dump No-3 (Lease inside)									
Sl.No	Parameters	Unit	Analysis Results						
			APRIL-25	MAY-25	JUNE-25	JULY-25	AUG-25	SEPT-25	AVERAGE
1	pH at 250° C	--	7.31	7.36	7.33	7.12	7.23	7.46	7.30
2	Texture	--	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay
	Sand	%	66.5	68.9	65.9	60.5	61.3	61.9	64.1
	Silt	%	3	3.5	3.9	4.6	5.1	3.2	3.8
	Clay	%	31.9	30.8	30.2	34.9	32.9	30.9	31.9
3	Bulk Density	gm/cc	1.25	1.31	1.36	1.56	1.32	1.27	1.3
4	Water Holding Capacity	%	35.2	36.9	38.3	40.7	38.6	33.2	37.1
5	Electrical Conductivity	µs/cm	96.8	94.5	96.5	98.3	90.2	102.8	96.5
6	Available Nitrogen	mg/kg	24.2	22.8	23.6	22.4	23.6	24.6	23.5
7	Available Potassium as K	mg/kg	14.6	15.3	16.9	16.2	14.7	16.8	15.7
8	Available Phosphorous as p	mg/kg	11.3	13.2	13.9	12.8	13.1	14.1	13
9	Chloride as Cl	mg/kg	13.6	15.3	14.6	16.7	15.9	15.8	15.3
10	Iron as Fe	mg/kg	38.2	39.6	38.1	39.6	32.3	39.8	37.9
11	Copper as Cu	mg/kg	18.5	19.1	19.8	19.2	18.6	20.2	19.2
12	Nickel as Ni	mg/kg	25.3	25.6	23.7	24.1	23.9	28.1	25.1
13	Manganese as Mn	mg/kg	34.1	35.2	38.2	37.6	35.7	35.9	36.1
14	Zinc as Zn	mg/kg	30.4	29.3	29.8	29.2	30.2	31.5	30
15	Cobalt as Co	mg/kg	4.6	4.5	4.7	4.6	4.3	5.1	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	10.9	11.2	10.9	11.2	10.9	9.8	10.8
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	43.9	42.1	40.9	44.6	40.5	42.5	42.4
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	21.6	23.2	21.6	23.4	22.9	23.5	22.7

Reviewed By

Approved By

Report. No: Envlab/25-26/TR-15266 **Date: 10.10.2025**

S-2: Durga Puja field (Lease Outside)									
Sl.No	Parameters	Unit	Analysis Results						
			APRIL-25	MAY-25	JUNE-25	JULY-25	AUG-25	SEPT-25	AVERAGE
1	pH at 250 C	--	7.51	7.64	7.71	7.54	7.68	7.46	7.59
2	Texture	--	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay	
	Sand	%	61.9	61.2	59.3	54.1	56.8	61.9	59.2
	Silt	%	2.1	2.9	3.1	2.9	3.2	3.2	2.9
	Clay	%	37.5	34.2	37.6	43.0	40.1	30.9	37.2
3	Bulk Density	gm/cc	1.19	1.15	1.19	1.28	1.19	1.27	1.21
4	Water Holding Capacity	%	31.6	32.7	31.7	34.2	32.1	33.2	32.5
5	Electrical Conductivity	µs/cm	90.7	90.2	87.2	88.5	82.5	102.8	90.3
6	Available Nitrogen	mg/kg	25.1	26.9	26.1	25.9	21.7	24.6	25
7	Available Potassium as K	mg/kg	15.8	16.7	15.3	11.7	12.1	16.8	14.7
8	Available Phosphorous as p	mg/kg	8.4	10.2	11.7	11.6	10.2	14.1	11
9	Chloride as Cl	mg/kg	14.7	14.1	15.2	15.5	13.8	15.8	14.8
10	Iron as Fe	mg/kg	42.1	44.2	42.5	44.2	35.6	39.8	41.4
11	Copper as Cu	mg/kg	21.9	22.7	20.7	21.5	20.1	20.2	21.1
12	Nickel as Ni	mg/kg	29.1	28.1	28.1	27.9	25.7	28.1	27.8
13	Manganese as Mn	mg/kg	26.8	27.8	26.4	29.4	23.5	35.9	28.3
14	Zinc as Zn	mg/kg	33.8	35.1	33.9	31.4	28.7	31.5	32.4
15	Cobalt as Co	mg/kg	4.1	3.9	3.5	3.9	3.1	5.1	3.9
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	10.2	10.5	10.1	11.8	11.2	9.8	10.6
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	45.7	40.9	37.2	39.8	36.2	42.5	40.3
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	23.3	25.1	24.8	26.1	28.1	23.5	25.15

Reviewed By

Approved By

TSL/FAMD/SCM/FY26/3098
Date: 25-09-2025

To,
The Member Secretary,
Odisha State Pollution Control Board,
Paribesh Bhawan,
A/118, Nilakantha Nagar,
Bhubaneswar, 751012

Subject: Submission of Environmental statement in FORM-V for the year ending 31st March 2025 in respect of Sukinda Chromite Block of M/S Tata Steel Ltd.

Reference: Rule-14 under Environmental (Protection) Amendment Rule, 1993 (G.S.R 386, 22.04.1993)

Dear Sir,
We are hereby submitting the Annual Environmental Statement in "FORM-V" prescribed under the provisions of above referenced statute, in respect of Sukinda Chromite Block of M/s Tata Steel Ltd., At – Sukinda, Po- Kalarangiatta, Dist- Jajpur, Odisha, for the year ending 31st March 2025. A copy of the annual return (annual return submitted to IBM, Govt. of India/Directorate of Mines, Govt. of Odisha) is also attached as Annexure-I.

This is for your kind information and perusal please. Receipt of the same may please be acknowledged.

Thanking You.
Yours faithfully,
f: Tata Steel Limited

25/09/2025
Mines Manager
Sukinda Chromite Block

Enclosures: As above (Annexure-I)
Copy to: 1. Regional Officer, SPCB, Odisha, At-Dadagiri, Po- F.C Project, Jajpur Road, Dist – Jajpur – 755020

Environmental Statement

Form – V (FY - 2024 – 25)

For

Sukinda Chromite Block

Submitted By:

Sukinda Chromite Block

M/s. Tata Steel Limited

At: Sukinda, Po: Kalarangiatta, Block-Sukinda
District- Jajpur, Odisha -755028

FORM-V

(See Rule 14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING THE 31st MARCH, 2025

SUKINDA CHROMITE BLOCK, M/s. TATA STEEL LIMITED.

Part A

	Name and address of the owner / occupier of the industry operation or process.	**:**	Shri T V Narendran (Managing Director) M/s. Tata Steel Limited, Plot No. N3/24, IRC Village, Nayapalli, Bhubaneswar, Odisha – 751 015
	Industry category Primary – (STC code) Secondary – (SIC Code)	**:**	Primary (SIC): 1000 (Metal Mining) Secondary (SIC): 1060 (Ferro Alloy Ore)
	Production capacity – Units.	**:**	0.6 MTPA (Chromite Ore)
	Year of establishment.	**:**	2020
	Date of the last Environmental Statement submitted.	**:**	26.09.2024

PART-B
Water and Raw Material Consumption

A. Water Consumption for FY 2024-25 (April 2024 to March 2025)

Process	Cooling	Domestic
472 m3/day	7.17 m3/day	1619.3 m3/day

B. Specific Water Consumption – (April'2024 to March 2025)

(i) Process water consumption per unit of product output

Name of the Product	Production (MT)	Water consumption per unit of production*
Chrome Ore (ROM)	296218.945	.58 KL/MT

**Note: In case of mining operation the water requirement is for dust suppression, plantation & washing of vehicle which has been taken as process consumption of water.*

(ii) Raw Material Consumption

The materials consumed during the previous and current financial year are in consumable and supportive ads in nature. The materials which are required for the production of Chrome ore from mine quarry are given below:

Name of material	Name of products	Consumption of material per unit of output	
		During the previous financial year (2023-24)	During the current financial year (2024-25)
Diesel	Chrome Ore (ROM)	8.411098 Ltrs/Ton	0.058 Ltrs/Ton
Gas (LPG)		Nil	Nil
Lubricant oil		0.145905 Ltrs/Ton	0.00062 Ltrs/Ton
Grease		0.015267 Kg/Ton	Nil
Electricity		10.54197 KWH/Ton	14.42 KWH/Ton
Explosives		0.068901 Kg/Ton	0.057 Kg/Ton

PART-C
{POLLUTION DISCHARGED TO ENVIRONMENT/UNIT OF OUTPUT}

(Parameters as specified in the consent issued)

1) Water Pollution

1. The major source of water for undertaking various activities is the mine pit water (rainfall and surface runoff accumulated in the pit and ground water seepage). Mine pit water is collected through stage pumping and drains at the Inlet of the ETP where; it is treated to correct the load of suspended solids, pH, Hexavalent Chromium, etc. Treated effluent is then reused for various purposes such as vehicle washing, haul road dust suppression, greenbelt development and maintenance, chrome ore beneficiation process and the balance treated effluent is discharged beyond the premises conforming to the prescribed norms.
2. Water consumed for industrial cooling (AC Cooling): 100% Recycled.
3. Water Consumed for Vehicle Washing: 100% Recycled at Oil-Water Separation Pit.
4. The only point at which the potential for the discharge of pollutant is with the discharge end (outlet of the ETP) which has been put under real-time monitoring for the analysis of critical parameters such as, TSS, pH and Hexavalent Chromium. The summary of the treated effluent quality is outlined in the Table below:

Sl. No.	Parameters	Unit	Result Average	Maximum Permissible Standard	Variation from the prescribed standard (%)	Quantity (Kg/day)	Remarks for the deviations if any
1.	Suspended Solids	mg/ltr	1.5	100	-98.5	4.53	Within the prescribed Limit
2.	Oil & Grease	mg/ltr	3.05	10	-69.5	9.2	Not Detected in any of the samples.

3.	BOD (3) days at 270c	mg/ltr	ND	30	-100	NA	Below detection limit.
4.	COD	mg/ltr	ND	250	-100	NA	Below detection limit
5.	Hexavalent Chromium as Cr +6	mg/ltr	BDL	0.1	-100	NA	Below detection limit
6.	Total Chromium	mg/ltr	BDL	2.0	-99	NA	Detected only in few Samples
7.	Nickel as Ni	mg/ltr	BDL	3	-100	NA	Below detection limit
8.	Iron as Fe	mg/ltr	0.25	3	-91.66	0.81	Below detection limit

2) Air Pollution

There is no such point source of emission from the mine. Major source of air pollutants is fugitive dust generated mainly due to the movement of vehicles/HEMMs in the haul roads, drilling/blasing activities etc, which is fugitive in nature and thus has not been quantified (mass/day).

PART-D

HAZARDOUS WASTAGES

(As specified under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016)

Hazardous Waste	Total Quantity During the previous financial year (2023-24)	Total Quantity During the current financial year (2024-25)
(a) From process		
Used/Waste Oil	25.88 Ton	3.63 Ton
Residual waste containing oil	0.235 Ton	0.03825 Ton
Discarded Containers/Barrels/Liners contaminated with Hazardous Wastes/Chemicals	Nil	4.5 Ton
ETP Sludge	250.19 Ton	37.6 Ton
(b) From pollution control facilities	Included in the above-mentioned items	Included in the above-mentioned items

PART-E

Solid Waste

	Solid Waste	Total Quantity (MT) During the current financial year (2024-25)
(a)	From process (Overburden)	1983924.8 Ton
(b)	From pollution control facility	Nil
(c)	(1) Quantity recycled or re-utilized within the unit	Nil
	(2) Sold	Nil
	(3) Disposed	Nil

PART-F

[Please specify the characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both the categories of wastes.]

The details composition and characteristics of solid and hazardous waste are given below

Sl. No.	Waste Description	Nature of Waste	Composition/ Characteristics	Quantity (2024-25)	Management (Methods of collection and Disposal)
1	Overburden Material	Non-Hazardous (Solid waste)	Quartzite, Laterites, Lateritic soil, Talc schist and serpentine, Nickeliferous limonite	1983924.8 Ton	The waste material is dumped in non-mineralized area approved by IBM with all environmental protection measures
2	Used /Waste oil	Hazardous Waste (HW-5.1)	Lead, Arsenic, Cadmium, Chromium, Nickel, PAHs etc.	3.63 Ton	Collected and securely stored inside 200Ltr MS Barrels and stored above concrete flooring. Sold to M/s Swaraj Lubricants, authorized by SPCB.
3	Residual waste containing oi	Hazardous waste (HW-5.2)	Consists of oil contaminated cotton, Jute, soaked sand etc.	0.03825 Ton	Collected and stored in MS Barrels above concrete flooring for large quantity disposal to authorized agency
4	Discarded Containers/Barrel	Hazardous waste (HW-35.3)	Consist of oil contaminated barrels	4.5 Ton	Collected and stored above concrete flooring for large quantity disposal to authorized agency

	s/Liners contaminated with Hazardous Wastes/ Chemicals				
4	ETP sludge	Hazardous Waste (HW-34.3)	Composition of Cr, Fe, Al, Si etc.	37.6 Ton	ETP sludge is being disposed through Ramky Enviro Engineers Limited Jajpur

PART-G

[Impact of the pollution measures taken on conservation of natural resources and on the cost production]

a) Dust Suppression

- Regular water spraying was being carried out on mine haul road, working site, waste dump yard, ore stack yard loading and unloading points by water tankers to reduce the dust levels.
- Regular water sprinkling on mineral transportation roads passing through the habitation area as well as other strategic point was being done regularly.
- Wet drilling was a common practice during drilling operation to reduce air pollution.
- Pre- wetting of blasting site and controlled blasting was being practiced reducing dust generation.
- The mineral transportation was being carried out by trucks covered with tarpaulin and properly sealed.
- No trucks are overloaded at any point of time to avoid spillage of ore.
- Currently mining operation has stopped. The Final Mine Closure Plan completion has been certified by Indian Bureau of Mines and we are in process of surrendering the mine lease to Government of Odisha.

.

b) **Environment management: Solid Waste Management:**

- Overburden/waste rock was being dumped in the earmarked dump area approved by IBM with suitable terracing. The terraces are stabilized and rehabilitated by massive plantation.
- Retaining walls have been constructed at the toe of various OB dumps to arrest the flow solid. material. Garland drains are constructed in and around the OB dumps for drainage of surface run-off.

- Settling pits and check dams inside the garland drain have been constructed to arrest the slit/ soil particles in the water. Yearly twice, the settling pits and garland drains have been desilted.
- Currently mining operation has stopped. The Final Mine Closure Plan completion has been certified by Indian Bureau of Mines and we are in process of surrendering the mine lease to Government of Odisha.

c) Water Conservation: Treatment & Recycling

- For the workshop effluents: An oil -Water Separation Pit equipped with belt skimmer is in place for trapping the oil and grease splits in the effluents generated from the vehicle washing.
- The system of treatment for Mine Pit Water consists of an ETP of 4500 m3/hr (108MLD) having the facilities like, settling pit, flash mixture, clari-flocculator, automatic dosing system, dry sludge collection system, multi sand filters etc as per the Direction of State Pollution Control Board.
- Rain-water harvesting study had been conducted and one roof top harvesting structure had been constructed inside General Office premises which will be also extended to other buildings.

d) Environmental monitoring:

- Regular monitoring of ambient air quality is being carried out at four appropriate locations in core zone and in four locations in buffer zone as per statue.
- Regular monitoring of Ground water level is being carried out by the installed Piezometric bore wells inside mine lease area.

e) **Afforestation:**

For the FY 2024-25, we have cumulative sapling plantation of 40200 nos..

f) **Noise Monitoring:**

- Regular maintenance of the vehicles/ machines is carried out to reduce the noise pollution.
- Controlled blasting was generally practiced minimizing the noise.
- Regular noise level monitoring was being done on monthly basis and the results are found below permissible limit.

g) **Medical facilities and health monitoring**

- All the employees undergo periodical medical checkup like IME & PME.
- Mobile health checking is also being done regularly as part of occupational health surveillance program.
- One Dispensary center is established at Sukinda Mines for local community and employee

of three mines.

- Currently mining operation has stopped. The Final Mine Closure Plan completion has been certified by Indian Bureau of Mines and we are in process of surrendering the mine lease to Government of Odisha.

PART-H

[Additional measures/investment proposal for environmental protecting including abatement of pollution, preservation of pollution]

The management of sukinda chromite mines plans to undertake the environmental protection measures aiming at specific areas with defined budgetary provisions earmarked towards the environmental protection measures every year. Funds earmarked for this purpose for the year 2024-25 is outlined in the table below.

SL NO.	Expenditure	Amount (in Lakhs)
1	ETP operation cost	
	a) Manpower	238.89
	b) ETP Electricity cost	47.37
	c) Chemical & maintenance cost	209.2
2	Water sprinkling cost for haul road management	32.5
3	EQMS Online Analysis	2.385
4	EQMS Online Data Transmission	0.985
5	Monitoring & Analysis cost of Air, Water & Noise	38.08
6	Plantation	96
7	Display board	0.16
Total		665.57

PART-I

Any other particular for improving the quality of the environment:

The management of Tata Steel Limited is committed for prevention of the pollution inside and surrounding the lease hold area. Environmental monitoring is being done in core & buffer zones of the lease area to ascertain & to take preventive measure to keep the parameters within stipulated norms.

Environmental Management

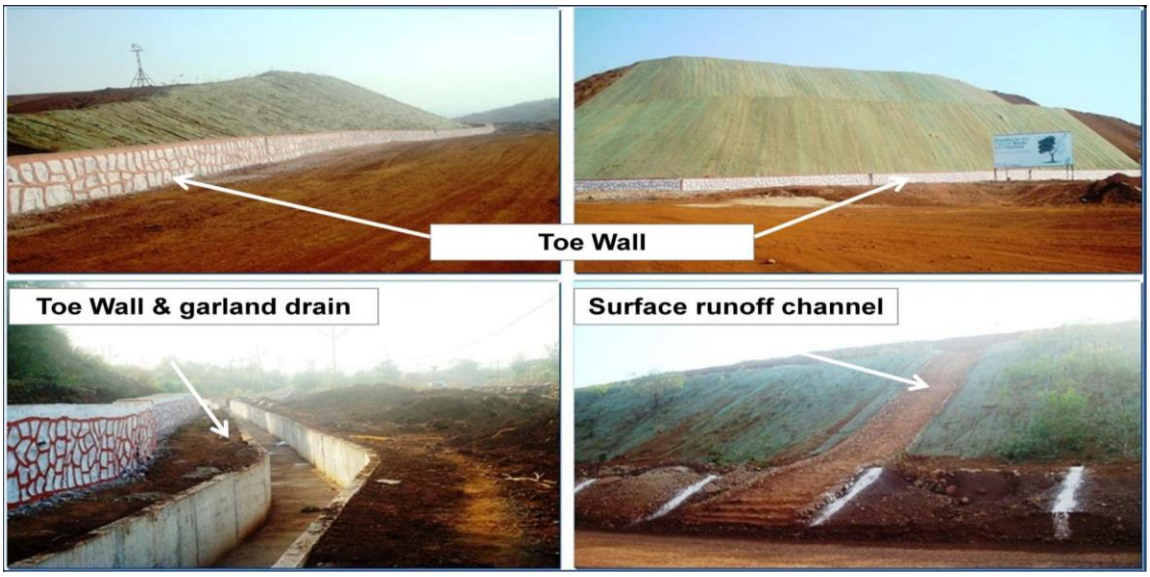
COVERING OF LOADED TRUCK BY TARPAULIN

Concreate Road

HAUL ROAD DUST SUPPRESSION SYSTEM:

RAIN -WATER HARVESTING STRUCTURE:

Toe wall, Garland Drain and Surface Runoff Channel



EFFLUENT TREATMENT PLANT (4500m^3/hr)

Oil-Water separation pit

Dump Plantation


GPS Map Camera
Jajpur, Odisha, India
, Omc Ore Mines, Odisha 755028, India, Jajpur, Odisha 755028, India
Lat 21.013563° Long 85.764267°
02/09/2025 03:00 PM GMT +05:30
Google

TSL/FAMD/SCM/FY26/2717
Date: 30-06-2025

To
The Regional Controller of Mines,
Indian Bureau of Mines,
Bhubaneswar-751020.

Sub: Submission of Annual Return in Form G1 for the Year FY25.

Dear Sir,

We are submitting here with annual return in Form G1 for the year FY25 for the mine Sukinda Chromite Mine of Tata Steel Limited.

Thanking You.

Yours faithfully,
F. Tata Steel Limited

30/6/25
Manager
Sukinda Chromite Block.
Mine Code: - 11ORI19028

Enclosed: - (i) From G-1
(ii) Geological Section
(iii) Geological Plan
(iv) Surface Plan

FORM G-1

[See rule 45(5)(c)(i)]

For the financial Year 1st April, 2024 to 31st March, 2025

ANNUAL RETURN

[To be used for minerals other than Copper, Gold, Lead, Pyrites, Tin, Tungsten, Zinc and precious and semi-precious stones]

To

(i) The Regional Controller of Mines
Indian Bureau of Mines
Bhubaneshwar Region,
PIN:
(Please address to Regional Controller of Mines in whose territorial jurisdiction the mines falls as notified from time to time by the Controller General, Indian Bureau of Mines under rule 66 of the Mineral Conservation and Development Rules, 2017)

(ii) The State Government of Odisha

Final Submitted

PART - I (General)

1. Details of Mine:	
(a) Registration number allotted by Indian Bureau of Mines *(to give registration number of the Lessee-Owner)*	IBM/4376/2011
(b) Mine Code (allotted by Indian Bureau of Mines)	11ORI19028
(c) Name of the Mineral	CHROMITE
(d) Name of Mine	SUKINDA CHROMITE MINE
(e) Name(s) of other mineral(s), if any, produced from the same mine	PYROXENITE
2. Location of the Mine :	
Village	SUKINDA
Post Office	KALARANGIATTA
Tahsil-Taluk	KALIAPANI
District	JAJAPUR
State	ODISHA
PIN Code	755028
Fax No. :	0000000000
Phone No. :	9238087107
E-mail:	minemanager.sukinda@tatasteel.com
Mobile:	9238087107

3. Name and address of Lessee-Owner (along with fax no. and e-mail):	
Name of Lessee-Owner	M/s. Tata Steel Limited
Address	Bombay House,24 Homi Modystreet Fort,, Mumbai
District	MUMBAI SUBURBAN
State	MAHARASHTRA
PIN Code	400001
Fax No. :	
Phone No. :	6742551045
E-mail:	minemanager.sukinda@tatasteel.com
Mobile:	9438887778
4. Registered Office of the Lessee:	Tata Steel Limited, Bombay House,24 Homi Mody Street Fort, Mumbai
5. Director in charge :	MR T V NARENDRAN, CEO & MANAGING DIRECTOR
6. Agent :	MR NAVEEN SHRIVASTAVA
7. Manager :	MR NIHRA RANJAN MITRA
8. Mining Engineer in charge:	NIHAR RANJAN MITRA
9. Geologist in charge :	VIRAJ A. VERLEKAR
10. Transferor (previous owner), if any, and date of transfer:	TATA STEEL LIMITED 23/07/2020

Uploaded Document	
Upload PMCP Table in Excel:	PMCP_Excel_File.xlsx
Upload UAV Survey (KML/KMZ File) :	Sukinda_Drone_Data.kmz

11. Particulars of area operated-Lease

(Furnish information on items (i) to (vi) lease-wise in case mine workings cover more than one lease)

Lease - 1	
(i) Lease number allotted by the State Government	061304569303
(ii) Area under lease (hectares):	
Under Forest	404.669 hectares
Outside Forest	1.331 hectares
Total	406.000 hectares
(iii) Date of execution of mining lease deed	23/07/2020
(iv) Period of lease	50
(v) Area for which surface rights are held (hectares)	
Under Forest	404.669 hectares
Outside Forest	1.331 hectares
Total	406.000 hectares

Final Submitted

(vi) Date and period of renewal (if applicable)	0

(vii) In case there is more than one mine in the same lease area, indicate name of mine and mineral produced

Mine Name	Mine Code	Mineral Name
--	--	--

12. Lease area (surface area) utilisation as at the end of year (hectares):	Under forest	Outside forest	Total
(i) Already exploited and abandoned by opencast (O-C) mining	0.000	0.000	0.000
(ii) Covered under current (O-C) Workings	149.357	0.210	149.567
(iii) Reclaimed-rehabilitated	30.710	0.000	30.710
(iv) Used for waste disposal	86.730	0.260	86.990
(v) Occupied by plant, buildings, residential, welfare buildings and roads	76.055	0.728	76.783
(vi) Used for any other purpose (specify) Green Belt, Nala, Safety zone, etc.	61.817	0.133	61.950
(vii) Work done under progressive mine closure plan during the year	18.010	0.000	18.010
13. Ownership-exploiting Agency of the mine: (Public Sector-Private Sector-Joint Sector)	Private Sector		

Final Submitted

PART-II (Employment and Wages)

1.Number of supervisory staff employed at the mine		
Description	Wholly employed	Partly employed
(i) Graduate Mining Engineer	4	0
(ii) Diploma Mining Engineer	12	0
(iii) Geologist	1	0
(iv) Surveyor	1	0
(v) Other administrative and technical supervisory staff	21	0
Total:	39	0
2. (i) Number of days the mine worked:	309	
(ii) No. of shifts per day:	1	

(iii) Indicate reasons for work stoppage in the mine during the year (due to strike, lockout, heavy rain, non-availability of labour, transport bottleneck, lack of demand, uneconomic operations, etc.) and the number of days of work stoppage for each of the factors separately .

Reasons	No. of days
Weekly off	52
Holidays	3

3. Employment and salary-wages paid #:

Maximum number of persons employed on any one day during the year:

(i) In workings below ground on *(date)* (a) *(number)* 0

(ii) In all in the mine on *(date)* 13/04/2024 (a) *(number)* 1000

Classification	Total number of man days worked during the year			No. of days worked during the year	Average daily number of persons employed			Total Wages - Salary for the year (₹)
	Direct	Contract	Total		Male	Female	Total	
(1)	2(A)	2(B)	2(C)	(3)	4(A)	4(B)	4(C)	(5)
Below Ground	0	0	0	0	0	0	0	0.00
Opencast	17433	79619	97052	309	313.1	1	314.1	112033489.00
Above Ground	3914	102485	106399	309	318.3	26.1	344.4	100546260.00
Total:	21347.0	182104.0	203451.0	309.000	631.4	27.1	658.5	212579749.00

To include all employees exclusive to the mine and attached factory, workshop or mineral dressing plant at the mine site

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PART-II A (Capital Structure)

1. Value of Fixed Assets* (₹ 273739439)

(in respect of the mine, beneficiation plant, mine work-shop, power and water installation)

In case this information is furnished as combined information in another mine's return please specify Mine Code-Mine Name:

Mine Name	Mine Code	Mineral Name
--	--	--

Description	At the beginning of the year (₹)	Additions during the Year (₹)	Sold or discarded during the year (₹)	Depreciation during the year (₹)	Net closing Balance (₹) (2+3)-(4+5)	Estimated market value** (₹)
1	2	3	4	5	6	7
(i) Land***	0	0	0	0	0	0
(ii) Building:						
Industrial	28680309	0	0	42758	28637551	0
Residential	12708565	0	0	30916	12677649	0
(iii) Plant and Machinery including transport equipment	235150904	0	86286	7964485	227100133	0
(iv) Capitalised Expenditure such as pre-production exploration, development, major overhaul and repair to machinery etc. (As prescribed under Income Tax Act)	8867717	0	0	3543611	5324106	0
Total:	285407495	0	86286	11581770	273739439	0

* In case the fixed assets are common to more than one mine, furnish combined information for all such mines together in any one of the mine's return. In the returns for other mines, give only a cross reference to the particular mine's return where-in the information is included.

** Optional and may be furnished in respect of items (i), (ii) and (iii) if the mine owner desires.

*** Including any non-recurring expenditure incurred on the acquisition of land.

2. Source of Finance (at the end of the year) :

(i) Paid up Share Capital (₹)	0
(ii)Own Capital (₹)	0
(iii)Reserve and Surplus (All Types)(₹)	0
(iv)Long Term loans outstanding (#)(₹)	0

Name of the Institution-Source	Amount of Loan (₹)	Rate of Interest
NIL	0	0

(#) Indicate the names of the lending institutions such as State Finance Corporation, Industrial Development and other Public Corporations, Co-operative Banks, Nationalised Banks and other sources along with the amount of loan from each source and the rate of interest at which loan has been taken.

3. Interest and Rent (₹)

(i) Interest paid during the year	0
(ii) Rents (excluding surface rent) paid during the year	0

Final Submitted

PART-III (Consumption of Materials)

1. Quantity and cost of material consumed during the year			
Description	Unit	Quantity	Value (₹)
(i) Fuel			
(a) Coal	Tonnes	0	0
(b) Diesel Oil	Ltrs.	17194	1565576
(c) Petrol	Ltrs.	0	0
(d) Kerosene	Ltrs.	0	0
(e) Gas	Cu.M	0	0
(ii) Lubricant			
(a) Lubricant oil	Ltrs.	183	54534
(b) Grease	Kgs.	0	0
(iii) Electricity			
(a) Consumed	Kwh	4271372	30260665
(b) Generated	Kwh	20	5000
(c) Sold	Kwh	0	0
(iv) Explosives (furnish full details in Part IV)			7093800
(v) Tyres	Nos.	8	220000
(vi) Timber and Supports			0
(vii) Drill rods and kits	Nos.	100	2350000
(viii) Other spares and stores			0

2. Royalty, Rents and Payments made to DMF and NMET (₹):		
	Paid for current year	Paid towards past arrears
(a) Royalty	1095155296	0
(b) Dead rent	0	0
(c) Surface rent	6069798	0
(d) Payment made to DMF	109515601	0
(e) Payment made to NMET	21903183	0
3. Compensation paid for felling trees during the year (₹)		0
4. Depreciation on fixed assets (₹)		11581770

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5. Taxes and cesses		
	Amount in Rupees paid during the year to:	
	Central Govt.	State Govt.
(i) Sales Tax	344507571	3668909
(ii) Welfare cess	0	0
(iii) Other taxes and cesses:-		
(a) Mineral cess	0	0
(b) Cess on dead rent	0	0
(c) Others (please specify) Electricity Duty, User fess, Application fees, Vehicle taxes,weighment Charges, surface rent	0	4127584
6. Other expenses (₹):		
(i) Overheads		17864446
(ii) Maintenance		0
(iii) Money value of other benefits paid to workmen		0
(iv) Payment made to professional agencies		0

Final Submitted

PART-IV (Consumption of Explosives)

Licensed capacity of magazine: (specify unit separately in kg-tonne, numbers, metres)	**Item**	**Unit**	**Capacity**
	Explosives	Kg.	19000
	Detonators	No.s	44000
	Fuses	Mts	5500

Classification of Explosives	Unit	Quantity consumed during the year		Estimated requirement during the next year	
		Small dia. (upto 32 mm)	Large dia. (above 32 mm)	Small dia. (upto 32 mm)	Large dia. (above 32 mm)
1. Gun Powder	Kg.	0		0	
2. Nitrate Mixture					
a. Loose ammonium nitrate	Kg.	0	0	0	0
b. Ammonium nitrate in cartridged form	Kg.	0	0	0	0
3. Nitro compound	Kg.	0	0	0	0
4. Liquid Oxygen soaked cartridges	Kg.	0	0	0	0
5. Slurry explosives (Mention different trade names) CARTRIDGE	Kg.	0	16825	0	0
6. Detonators					
i) Ordinary	No.s	5292		0	
ii) Electrical					
(a) Ordinary	No.s	125		0	
(b) Delay	No.s	0		0	
7. Fuse					
(a) Safety Fuse	Mts	0		0	
(b) Detonating Fuse	Mts	0		0	
8. Plastic ignition cord	Mts	0		0	
9. Others (specify) SME, CAST BOOSTER	Kg	117247		0	

Different sizes of soaked liquid oxygen cartridges to be reported in equivalent kg. as per manufacturer's instruction.

Final Submitted

PART-V (General Geology & Mining)

(Items 2 and 3 to be submitted separately for each mineral)

1. Exploration

1(i) Exploration activities during the year:

		At the beginning of the year	During the year	Cumulative	Grid spacing-Dimension
Drilling	No of holes	627	0	627	100m X 100m
	Metrage	85153	0	85153	100m X 100m
Pitting	No of pits	0	0	0	0
	Excavation (in m^3)	0	0	0	0
Trenching	No of trenches	0	0	0	0
	Excavation (in m^3)	0	0	0	0
	Length covered (in metre)	0	0	0	0
Expenditure on exploration (₹)		0	0	0	0

1(ii). Any other exploration activity during the year: 0

2. Reserves and Resources estimated (in tonnes) (CHROMITE).

Classification	Code	At the beginning of the year 1.4.2024 as per latest approved mining plan- scheme	Assessed during the year	Depletion of reserves during the year	Balance resources as on 31.3.2025
(1)	(2)	(3)	(4)	(5)	(6)= (3+4-5)
A. Mineral Reserve					
1. Proved Mineral Reserve	111	2600070	0	296219	2303851
2. Probable mineral Reserve	121	0	0	0	0
	122	0	0	0	0
3. Total Reserves		2,600,070.00	0.00	296,219.00	2,303,851.00
B. Remaining Resources					
1. Feasibility mineral Resource	211	0	0	0	0
2. Prefeasibility mineral resource	221	3729354	0	0	3729354
	222	23208188	0	0	23208188
3. Measured mineral resource	331	1307447	0	0	1307447
4. Indicated mineral resource	332	23106499	0	0	23106499
5. Inferred mineral resource	333	35139985	0	0	35139985
6. Reconnaissance mineral resource	334	0	0	0	0
7. Total remaining Resources		86,491,473.00	0.00	0.00	86,491,473.00
Total (A+B)		89,091,543.00	0.00	296,219.00	88,795,324.00

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2. Reserves and Resources estimated (in tonnes) (PYROXENITE).

Classification	Code	At the beginning of the year 1.4.2024 as per latest approved mining plan- scheme	Assessed during the year	Depletion of reserves during the year	Balance resources as on 31.3.2025
(1)	(2)	(3)	(4)	(5)	(6)= (3+4-5)
A. Mineral Reserve					
1. Proved Mineral Reserve	111	0	0	0	0
2. Probable mineral Reserve	121	0	0	0	0
	122	0	0	0	0
3. Total Reserves		0.00	0.00	0.00	0.00
B. Remaining Resources					
1. Feasibility mineral Resource	211	0	0	0	0
2. Prefeasibility mineral resource	221	0	0	0	0
	222	0	0	0	0
3. Measured mineral resource	331	0	0	0	0
4. Indicated mineral resource	332	0	0	0	0
5. Inferred mineral resource	333	0	0	0	0
6. Reconnaissance mineral resource	334	0	0	0	0
7. Total remaining Resources		0.00	0.00	0.00	0.00
Total (A+B)		0.00	0.00	0.00	0.00

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3. Subgrade-Mineral Reject (in tonnes) (CHROMITE)

(Information to be given in respect of mineral fractions generated and stacked- dumped below cut-off grade and above threshold value, if prescribed, having no immediate sale value)

Generation of subgrade-mineral reject (in tones)	At the beginning of the year	Generated during the year	Disposed during the year	Total stacked at the end of the year	Average grade of the mineral reject generated
from unprocessed ore	0	0	0	0	0
from processed ore	0	0	0	0	0

3. Subgrade-Mineral Reject (in tonnes) (PYROXENITE)

(Information to be given in respect of mineral fractions generated and stacked- dumped below cut-off grade and above threshold value, if prescribed, having no immediate sale value)

Generation of subgrade-mineral reject (in tones)	At the beginning of the year	Generated during the year	Disposed during the year	Total stacked at the end of the year	Average grade of the mineral reject generated
from unprocessed ore	0	0	0	0	0
from processed ore	0	0	0	0	0

4. Overburden and Waste (in m^3)

(Information to be given in respect of overburden- waste and mineral fractions generated below threshold value, if prescribed)

At the beginning of the year	Generated during the year	Disposed in dumps during the year	Backfilled during the year	Total at the end of the year
94227914	862576	0	862576	95090490

5. Trees planted- survival rate

Description	Within lease area	Outside lease area
i) Number of trees planted during the year	40200	0
ii) Survival rate in percentage	91	0
iii) Total no. of trees at the end of the year	55256	0

6. Type of Machinery: Give the following information for the types of machinery in use such as hoist, fans, drills, loaders, excavators, dumpers, haulages, conveyors, pumps, etc.

Type of machinery	Capacity of each type of machinery	Unit (in which capacity is reported)	No. of machinery	Electrical Non-electrical (specify)	Used in opencast underground (specify)
PUMPS (ELEC.)	10000.000	L/MN	2	Electrical	Opencast
PUMPS (ELEC.)	2833.000	L/MN	1	Electrical	Opencast
PUMPS (ELEC.)	3333.000	L/MN	3	Electrical	Opencast
PUMPS (ELEC.)	2500.000	L/MN	4	Electrical	Opencast
SHOVEL (HYDRAULIC)	4.200	CUM	1	Non Electrical	Opencast
SHOVEL (HYDRAULIC)	1.800	CUM	1	Non Electrical	Opencast
FRONT END LOADER	5.500	CUM	1	Non Electrical	Opencast
BACK HOE	1.100	CUM	2	Non Electrical	Opencast
TIPPER	19.500	CUM	4	Non Electrical	Opencast
CRANE	30.000	TONNE	1	Non Electrical	Opencast
OTHERS (NON-ELEC.)	136.000		1	Non Electrical	Opencast
EXPLOSIVE VAN	125.000	TONNE	1	Non Electrical	Opencast
OTHERS (NON-ELEC.)	100.000		1	Non Electrical	Opencast
TRUCK	125.000	TONNE	1	Non Electrical	Opencast
EXPLOSIVE VAN	100.000	TONNE	1	Non Electrical	Opencast
MINE CARS	75.000	TONNE	9	Non Electrical	Opencast
MINE CARS	75.000	TONNE	9	Non Electrical	Opencast
OTHERS (NON-ELEC.)	114.000		3	Non Electrical	Opencast

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7**(i) Details of mineral Treatment Plant, if any**: Give a brief description of the process capacity of the machinery deployed and its availability. (Submit Flow Sheet and Material Balance of the Plant separately).

NIL

(ii) Furnish following information:

Item		Tonnage	Average Grade
Feed:		0.000	0.000
Concentrates-processed products :	(mention name)	0.000	0.000
By-products-Co-products:	(mention name)	0.000	0.000
Tailings:		0.000	0.000

7**(i) Details of mineral Treatment Plant, if any**: Give a brief description of the process capacity of the machinery deployed and its availability. (Submit Flow Sheet and Material Balance of the Plant separately).

NIL

(ii) Furnish following information:

Item		Tonnage	Average Grade
Feed:		0.000	0.000
Concentrates-processed products :	(mention name)	0.000	0.000
By-products-Co-products:	(mention name)	0.000	0.000
Tailings:		0.000	0.000

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PART-VI (PRODUCTION, DESPATCHES AND STOCKS) (CHROMITE)

(To be submitted separately for each mineral)

(Unit of Quantity in Tonnes)

1. Type of ore produced:

(Applicable for Iron ore only; tick mark whichever is applicable)

2. Production and Stocks of ROM ore at Mine-head

Category	Opening stock	Production	Closing stock
(a) Open Cast workings	0.000	296218.945	0.000
(b) Underground Workings	0.000	0.000	0.000
(c) Dump workings	0.000	0.000	0.000

3(i) Grade-wise ROM ore despatches from mine head ($):

Grade of ROM	Despatches from mine-head	Ex-mine Price (₹)
(a) Below 40% Cr2O3 ROM	0.000	0.00
(b) 40% to below 52 % Cr2O3 ROM	0.000	0.00
(c) 52% and above Cr2O3 ROM	0.000	0.00

($): Applicable for iron ore and chromite only. For other minerals data of dispatches to be reported in 3(ii)

3(ii) Grade-wise Production, Dispatches, Stocks and Ex-mine prices:

Grades**	Opening stock at mine-head	Production	Despatches from mine-head	Closing stock at mine-head	Ex-mine price (₹-Tonne)
(i) Lumps					
(a) Below 40% Cr2O3	0.000	0.000	0.000	0.000	0.00
(b) 40% to below 52 % Cr2O3	0.000	0.000	0.000	0.000	0.00
(c) 52% and above Cr2O3	0.000	0.000	0.000	0.000	0.00
(ii) Fines					
(a) Below 40% Cr2O3	308112.893	80919.765	153800.520	235232.138	9420.13
(b) 40% to below 52 % Cr2O3	16559.789	187750.930	204310.710	0.009	22785.30
(c) 52% and above Cr2O3	12964.716	27548.250	40512.960	0.006	32947.64
(a) CONCENTRATES	0.000	0.000	0.000	0.000	0.00

3(iii) In case the mineral is being pulverized in own factory, please give the following particulars (*):

Grade**	Total quantity of mineral Pulverized (in tonnes)	Total quantity of pulverized mineral produced (for each mesh size)		Total Quantity of pulverized mineral sold during the month		
		Mesh size	Quantity (tonne)	Mesh size	Quantity (tonne)	Ex-factory Sale value (₹)

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3(iv) Average cost of pulverization (*) : ₹ per tonne

(*): Not applicable for Iron ore, Manganese ore, Bauxite and Chromite

4. Details of deductions made from sale value for computation of Ex-mine price (₹- Tonne)

Deduction claimed #	Amount (in ₹- Tonne)	Remarks
(a) Cost of transportation (indicate loading station and distance from mine in remarks)	0.00	NA
(b) Loading and unloading charges	0.00	NA
(c) Railway freight, if applicable (indicate destination and distance)	0.00	NA
(d) Port Handling charges- export duty (indicate name of port)	0.00	NA
(e) Charges for sampling and analysis	0.00	NA
(f) Rent for the plot at Stocking yard	0.00	NA
(g) Other charges (specify clearly)	0.00	NA
Total (a) to (g)	0.00	

 # Not applicable for captive dispatches and ex-mine sales

5. Sales- Despatches effected for Domestic Purposes and for Exports:

Grade	Nature of Despatch *(indicate whether Domestic Sale or Domestic Transfer or Captive consumption or Export)*	For Domestic Purposes				For export		
		Registration number as allotted by the Indian Bureau of Mines to the buyer ##	Consignee name ##	Quantity	Sale value (₹)	Country	Quantity	F.O.B Value (₹)
Below 40% Cr2O3,Fines	CAPTIVE CONSUMPTION	IBM/5157/2011	ROHIT FERRO TECH LIMITED	25093.910	253584010.54			
Below 40% Cr2O3,Fines	CAPTIVE CONSUMPTION	IBM/5765/2011	M/s Tata Steel Limited	18689.080	168534653.16			
Below 40% Cr2O3,Fines	DOMESTIC SALE	IBM/4178/2011	ANAND EXPORTS	1985.200	19970038.91			
Below 40% Cr2O3,Fines	DOMESTIC SALE	IBM/45726/2023	ADISH MINERALS PRIVATE LIMITED	1704.670	20386591.82			
Below 40% Cr2O3,Fines	DOMESTIC TRANSFER	IBM/1129/2011	Jindal Stainless Limited	16751.880	167585188.35			
Below 40% Cr2O3,Fines	DOMESTIC TRANSFER	IBM/240/2011	Shyam Metalics & Energy Limited	2477.200	25048677.14			
Below 40% Cr2O3,Fines	DOMESTIC TRANSFER	IBM/4376/2011	Tata Steel Limited	45221.180	448716232.09			
Below 40%	DOMESTIC	IBM/5307/2	AARTI STEELS	14195.150	133010630.			

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Cr2O3,Fines	TRANSFER	011	LIMITED		27			
Below 40% Cr2O3,Fines	DOMESTIC TRANSFER	IBM/538/2011	JAI BALAJI INDUSTRIES LIMITED	15655.530	152161115.10			
Below 40% Cr2O3,Fines	DOMESTIC TRANSFER	IBM/5771/2011	Tirumala Balaji Alloys Private Limited	12026.720	119758194.05			
40% to below 52 % Cr2O3,Fines	CAPTIVE CONSUMPTION	IBM/5157/2011	ROHIT FERRO TECH LIMITED	43350.130	1011144105.01			
40% to below 52 % Cr2O3,Fines	CAPTIVE CONSUMPTION	IBM/5765/2011	M/s Tata Steel Limited	34792.420	813411575.86			
40% to below 52 % Cr2O3,Fines	DOMESTIC SALE	IBM/538/2011	JAI BALAJI INDUSTRIES LIMITED	11283.100	246962706.23			
40% to below 52 % Cr2O3,Fines	DOMESTIC SALE	IBM/5771/2011	Tirumala Balaji Alloys Private Limited	1020.160	28411435.63			
40% to below 52 % Cr2O3,Fines	DOMESTIC TRANSFER	IBM/1129/2011	Jindal Stainless Limited	14982.750	335673489.88			
40% to below 52 % Cr2O3,Fines	DOMESTIC TRANSFER	IBM/240/2011	Shyam Metalics & Energy Limited	4078.660	95218595.82			
40% to below 52 % Cr2O3,Fines	DOMESTIC TRANSFER	IBM/4376/2011	Tata Steel Limited	39213.950	916166962.91			
40% to below 52 % Cr2O3,Fines	DOMESTIC TRANSFER	IBM/5307/2011	AARTI STEELS LIMITED	15879.000	370238110.13			
40% to below 52 % Cr2O3,Fines	DOMESTIC TRANSFER	IBM/538/2011	JAI BALAJI INDUSTRIES LIMITED	16928.910	387640381.67			
40% to below 52 % Cr2O3,Fines	DOMESTIC TRANSFER	IBM/5771/2011	Tirumala Balaji Alloys Private Limited	22781.630	530470041.42			
52% and above Cr2O3,Fines	CAPTIVE CONSUMPTION	IBM/5157/2011	ROHIT FERRO TECH LIMITED	4097.910	122727479.35			
52% and above Cr2O3,Fines	CAPTIVE CONSUMPTION	IBM/5765/2011	M/s Tata Steel Limited	2048.080	59117829.20			
52% and above Cr2O3,Fines	DOMESTIC SALE	IBM/538/2011	JAI BALAJI INDUSTRIES LIMITED	7073.100	226964507.71			
52% and above Cr2O3,Fines	DOMESTIC TRANSFER	IBM/1129/2011	Jindal Stainless Limited	2681.340	84209481.48			
52% and above Cr2O3,Fines	DOMESTIC TRANSFER	IBM/240/2011	Shyam Metalics & Energy Limited	1810.040	52246804.60			
52% and above Cr2O3,Fines	DOMESTIC TRANSFER	IBM/4376/2011	Tata Steel Limited	12035.610	368099929.25			
52% and above Cr2O3,Fines	DOMESTIC TRANSFER	IBM/5307/2011	AARTI STEELS LIMITED	5029.680	145766584.90			
52% and above Cr2O3,Fines	DOMESTIC TRANSFER	IBM/538/2011	JAI BALAJI INDUSTRIES LIMITED	2616.850	79159712.50			
52% and above Cr2O3,Fines	DOMESTIC TRANSFER	IBM/5771/2011	Tirumala Balaji Alloys Private Limited	3120.350	90110051.10			

To indicate separately if more than one buyer.

NOTE:- Mine owners are required to substantiate domestic sale value- FOB value for each grade of ore quoted above with copy of invoices (not to be submitted with the return; to be produced whenever required)

Final Submitted

6. Give reasons for increase-decrease in production-nil production, if any, during the year compared to the previous year.

a) PRODUCTION AS PER BUSINESS PLAN WITHIN ENVIRONMENT CLEARANCE AND MINING PLAN

7. Give reasons for increase-decrease in grade wise ex-mine price, if any, during the year compared to the previous year.

a) AS PER IBM ASP

Final Submitted

PART-VI (PRODUCTION, DESPATCHES AND STOCKS) (PYROXENITE)

(To be submitted separately for each mineral)

(Unit of Quantity in Tonnes)

1. Type of ore produced:

(Applicable for Iron ore only; tick mark whichever is applicable)

2. Production and Stocks of ROM ore at Mine-head

Category	Opening stock	Production	Closing stock
(a) Open Cast workings	0.000	0.000	0.000
(b) Underground Workings	0.000	0.000	0.000
(c) Dump workings	0.000	0.000	0.000

3(i) Grade-wise ROM ore despatches from mine head ($):

Grade of ROM	Despatches from mine-head	Ex-mine Price (₹)

($): Applicable for iron ore and chromite only. For other minerals data of dispatches to be reported in 3(ii)

3(ii) Grade-wise Production, Dispatches, Stocks and Ex-mine prices:

Grades**	Opening stock at mine-head	Production	Despatches from mine-head	Closing stock at mine-head	Ex-mine price (₹-Tonne)
(a) PYROXENITE	0.000	0.000	0.000	0.000	0.00

3(iii) In case the mineral is being pulverized in own factory, please give the following particulars (*):

Grade**	Total quantity of mineral Pulverized (in tonnes)	Total quantity of pulverized mineral produced (for each mesh size)		Total Quantity of pulverized mineral sold during the month		
		Mesh size	Quantity (tonne)	Mesh size	Quantity (tonne)	Ex-factory Sale value (₹)
	0.000		0.000		0.000	0.00

3(iv) Average cost of pulverization (*) : ₹ 0.00 per tonne

(*): Not applicable for Iron ore, Manganese ore, Bauxite and Chromite

4. Details of deductions made from sale value for computation of Ex-mine price (₹- Tonne)

Final Submitted

Deduction claimed #	Amount (in ₹- Tonne)	Remarks
(a) Cost of transportation (indicate loading station and distance from mine in remarks)	0.00	NA
(b) Loading and unloading charges	0.00	NA
(c) Railway freight, if applicable (indicate destination and distance)	0.00	NA
(d) Port Handling charges- export duty (indicate name of port)	0.00	NA
(e) Charges for sampling and analysis	0.00	NA
(f) Rent for the plot at Stocking yard	0.00	NA
(g) Other charges (specify clearly)	0.00	NA
Total (a) to (g)	0.00	

 # Not applicable for captive dispatches and ex-mine sales

5. Sales- Despatches effected for Domestic Purposes and for Exports:

Grade	Nature of Despatch *(indicate whether Domestic Sale or Domestic Transfer or Captive consumption or Export)*	For Domestic Purposes				For export		
		Registration number as allotted by the Indian Bureau of Mines to the buyer ##	Consignee name ##	Quantity	Sale value (₹)	Country	Quantity	F.O.B Value (₹)
NIL	NIL	0	NIL	0.000	0.00		0.000	0.00

To indicate separately if more than one buyer.

NOTE:- Mine owners are required to substantiate domestic sale value- FOB value for each grade of ore quoted above with copy of invoices (not to be submitted with the return; to be produced whenever required)

6. Give reasons for increase-decrease in production-nil production, if any, during the year compared to the previous year.

a) NA

7. Give reasons for increase-decrease in grade wise ex-mine price, if any, during the year compared to the previous year.

a) NA

Final Submitted

PART-VII: COST OF PRODUCTION

Cost of production per tonne of ore-mineral produced

Sl. No.	Item	Cost per tonne (₹)
(i)	Direct Cost	994.00
	(a) Exploration	0.00
	(b) Mining	994.00
	(c) Beneficiation(Mechanical Only)	0.00
(ii)	Over-head cost	60.00
(iii)	Depreciation	39.00
(iv)	Interest	0.00
(v)	Royalty	3029.00
(vi)	Payments made to DMF	303.00
(vii)	Payments made to NMET	61.00
(viii)	Taxes	0.00
(ix)	Dead Rent	0.00
(x)	Others (specify) Applicable Amount	18932.00
	Total	23418.00

Note: Information given under Part VII will be kept confidential. The Government, however, will be free to utilize the information for general studies without revealing the identity of the firm.

Mineral Name	Production proposal for financial year 2024 - 2025	Production reported during the financial year 2024 - 2025	Difference
CHROMITE	600117	296218.945	303898
PYROXENITE	0	0	0

Final Submitted

I Certify that the information furnished above is correct and complete in all respects.

Place:
Dist: JAJAPUR, ODISHA
Pin: 755028
Date:

Signature

Name in full: Nihar Ranjan Mitra
Designation:
Owner-Agent-Mining Engineer-Manager

From: 136.226.255.17 at 2025-06-26 16:15:09

Esigned by: Guest
Date: 26/06/2025 04:15:11 PM