

The Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Integrated Regional Office, (IRO) - Ranchi 2nd floor, Headquarter, Jharkhand State Housing Board Harmu Chowk, Harmu Housing Colony, Argora, Jharkhand - 834002.

Ref No. - JMB/ENV/JCPP/38/ 7-09/2024 November 27th, 2024

Ref.: Environmental Clearance letter no. - J-11015/203/2011-IA.II(M) dated- 3rd March 2014.

SUB: Half Yearly Compliance Status Report of Environment Clearance conditions issued by MoEFCC, New Delhi to Jamadoba Coal washery, Tata Steel Limited, Dhanbad for the period April-24 to September-24.

Dear Sir,

We are enclosing herewith compliance report for the period **April-24 to September-24** for the EC granted vide letter no.- J-11015/203/2011-IA.II(M) dated- 3rd March 2014 issued by Ministry of Environment, Forest and Climate Change, New Delhi.

We trust the information furnished is in line with your requirement.

Thanking you,

Yours faithfully,

Head (Planning) Jharia Division, Tata Steel Ltd.

Encl: As above.

Copy to: Member Secretary, CPCB, Eastern Zonal Office, Southend Conclave, 502, 5th Floor 1582, Rajdanga Main Road, Kolkata -700107.

Copy to: Member Secretary, JSPCB, T.A. Division Building (Ground Floor), H.E.C, Dhurwa, Ranchi - 834004.

Copy to: Regional Officer, JSPCB, HIG -1 Sardar Patel Nagar, Housing Colony, Hirapur, Dhanbad

TATA STEEL LIMITED

Jharia Collieries Jamadoba 828 112 Dhanbad India Tel 91 326 2320263/2320265/2320267 Fax 91 326 2320268 Regd. Office Bombay House 24 Homi Mody Street Fort Mumbai 400 001 Tel 91 22 66658282 Fax 91 22 66657724 Corporate Identity Number L27100MH1907PLC000260 Website www.tatasteel.com

Your (Half Yearly Compliance Report) has been Submitted with following details			
Proposal No	IA/JH/CMIN/7813/2012		
Compliance ID	111559719		
Compliance Number(For Tracking)	EC/M/COMPLIANCE/111559719/2024		
Reporting Year	2024		
Reporting Period	01 Dec(01 Apr - 30 Sep)		
Submission Date	29-11-2024		
RO/SRO Name	ARTATRANA MISHRA		
RO/SRO Email	jhk109@ifs.nic.in		
State	JHARKHAND		
RO/SRO Office Address	Integrated Regional Offices, Ranchi		
Note:- SMS and E-Mail has been sent to ARTATRANA M	ISHRA, JHARKHAND with Notification to Project Proponent.		

	2 01 Dec(01	ompliance Report 1024 Apr - 30 Sep) ledgement	
Proposal Name		MTPA in 7 ha Area and 24 30� N & 87� 25� 004	oal washery (1 MTPA to 2 4� 31� 30� to 24� 32� � to 87� 30� 00� E) of nsil Jharia, dist. Dhanbad,
Name of Entity / Corporat	e Office	Tata Steel Ltd.	
Village(s)		N/A	
District		DHANBAD	
Proposal No.	IA/JH/CMIN/7813/2012	Category	Coal Mining
Plot / Survey / Khasra N/A		Sub-District	N/A
State	JHARKHAND	Entity's PAN	****2803M
MoEF File No.	J-11015/203/2011- IA.II(M)	Entity name as per PAN	UTSAV KASHYAP

Compliance Reporting Details

Reporting Year	2024
Remarks (if any)	Half Yearly Compliance submission for April 2024- September 2024.
Reporting Period	01 Dec(01 Apr - 30 Sep)

Details of Production and Project Area

Name of Entity / Corporate Office Tata Steel Ltd.

	Project Area as per EC Granted	Actual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	7	7
Total	7	7

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Raw Coal	Million Tons per Annum (MTPA)	N/A	2	0.729	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details	
1	Risk Mitigation and Disaster Management	Controlled blasting shall be practiced with use of del and only during daytime. The mitigative measures for ground vibrations and to arrest the fly rocks and bould implemented.	control of
	ubmission: Complied icable as this is coal beneficiation	plant.	Date: 15/11/2024
2	Statutory compliance	The proponent shall maintain proper records of the as raw (ROM) coal, clean coal, middling and coal rejects quantum of raw coal obtained and washed and dispatch month and the same shall be uploaded on the company month.	along with ned every
	ubmission: Complied ecords are being maintained and the	e details are uploaded on the company website.	Date: 15/11/2024
3	MISCELLANEOUS	All internal roads shall be concreted or black topped approach roads used for the project shall be blacked to for parking of trucks carrying raw coal from the linked shall be created within the Unit.	pped. Faciliti
All the in	ubmission: Complied nternal roads have been concreted for parking of trucks within the unit	while the approach roads are black topped. There is a	Date: 15/11/2024
4	Statutory compliance	Roads used for coal transportation to the linked DRI/ developed with 3-tier avenue plantation using a mix of The trucks used for coal transportation shall be high ca Drivers of trucks for coal transportation shall be engag past records of road safety and compliance of safety re shall be suitably sensitized about road safety and main vehicles to keep vehicular emissions to be within presc	native species pacity trucks ed based on gulations and tenance of
There is from cap premises covered are prope	otive collieries Clean coal is disparent s. The clean coal is kept in storage coal-conveying system As for th	received via underground coal conveyor belt network atched via rail from the Rail-yard situated on the washery bins and directly transferred to the rail wagons through e trucks moving for transportation of tailings and rejects given provisions related to road safety and driver h.	Date: 15/11/2024
5	Statutory compliance	The roads (internal/approach and roads used for the pregularly cleaned with mechanical sweepers and with sprinklers. A 3-tier avenue plantation shall be developed	water

		company.	
Fixed		nstalled in the washery premises. Plantation along the e-tier green belt development is in progress	Date: 15/11/2024
6	GREENBELT	Green belt shall be developed along the areas such a unit, crushing unit, and stockyards and at transfer poir between mine operations and habitations.	
Green	Submission: Complied ery has been developed in many areas d along the boundary of washery for g	s around the washery premises. Saplings have been greenbelt development.	Date: 15/11/2024
7	AIR QUALITY MONITORING AND PRESERVATION	Hoppers of the coal crushing unit at the crushing she unit shall be fitted with high efficiency bag filters/Dus mist spray water sprinkling system shall be installed a effectively at all times of operation to check fugitive e crushing operations, transfer points of belt conveyor s shall be closed and from transportation roads.	at extractors an nd operated emissions from
Dry-fo and tra interna	ansfer points of belt conveyor systems al roads of the washery. These are alw	already installed to suppress the dust generated at CHP s. Fixed-type water sprinklers are also installed on the ways operated effectively to check the fugitive emissions. on regularly. The values are within the stipulated norms.	Date: 15/11/2024
8	WASTE MANAGEMENT	The proponent shall ensure that coal such as stones, wastes of an ash content of 77% or more only shall be the mine voids. Coal rejects with an ash content of 76° be fully utilized for power generation in linked TPP.	dumped into
	Submission: Complied eing followed.		Date: 15/11/2024
9	WATER QUALITY MONITORING AND PRESERVATION	Regular monitoring of groundwater level and quality levels of heavy metals such as Hg, Cd, Cr, Se, etc shal by establishing a network of existing wells and constru- peizometers. The monitoring for quantity and quality as per IS: 10500 shall be done four times a year in pre (May), monsoon (August), post-monsoon (November) (January) seasons. Proper records of the data thus coll maintained submitted to the Ministry of Environment to the Central Pollution Control Board quarterly within monitoring.	Il be carried ou uction of new of ground wate -monsoon) and winter ected shall be & Forests and
The m groun heavy	MONITORING AND PRESERVATION Submission: Complied nonitoring of groundwater level and qu dwater quality report and groundwate	 levels of heavy metals such as Hg, Cd, Cr, Se, etc shall by establishing a network of existing wells and construption peizometers. The monitoring for quantity and quality as per IS: 10500 shall be done four times a year in pre (May), monsoon (August), post-monsoon (November) (January) seasons. Proper records of the data thus coll maintained submitted to the Ministry of Environment to the Central Pollution Control Board quarterly within monitoring. uality is done regularly as per the requirements. The er level are provided in Annexure II. The monitoring of the groundwater is done on quarterly basis by NABL 	Il be carried ou uction of new of ground wate -monsoon) and winter ected shall be & Forests and

		rainwater use only. The project authorities shall meet requirement of nearby village(s) in case the village we to dewatering of mine.	
Some of mine for having water. I natural maintai water la	or the purpose of stowing. Backfillin the porosity to hold the underground Further, there are several ponds exis reservoirs for recharging ground wa ined by our CSR department. As per	erground mining activity is re-circulated back into the ag of mine voids by stowing is done using sand which is d water thus helping aquifer to retain the underground ting on the surface of the mining lease which act as ater. These ponds/ tanks are regularly cleaned and the hydro-geological report, the variation in the ground uirement of the nearby villages is being met by the er is being provided.	Date: 15/11/2024
11	WATER QUALITY MONITORING AND PRESERVATION	ETP shall also be provided for treatment of effluents workshop, CHP and an STP shall be provided in the c treated effluents shall be used for green belt developm rainfall, if any, from the mine shall meet prescribed no water quality of such discharge including levels of hea as Hg, Cd, Cr., Se, etc shall be monitored at the exit p records maintained thereof and also uploaded on the c website. Online monitoring equipment shall be installe proponent to ensure that the water quality parameters discharge are well within the General Discharge Stand Rules, 1986.	olony and the ent. Outflow orms and the avy metals suc- oints and ompany ed by the of mine water
	~ ~		
No effl premise having KLD h	es. A central workshop exists in Jam Oil and Grease Trap. One Sewage T	shery. There is no separate workshop in the washery nadoba Colliery with Effluent Treatment Plant facility Freatment Plant (STP) of 50 KLD and one STP of 10 ies of Jamadoba and Jamadoba canteen. Their treated ose.	Date: 15/11/2024
No effl premise having KLD h water i	luent is discharged outside of the was es. A central workshop exists in Jam Oil and Grease Trap. One Sewage T as been installed in one of the coloni	adoba Colliery with Effluent Treatment Plant facility Freatment Plant (STP) of 50 KLD and one STP of 10 ies of Jamadoba and Jamadoba canteen. Their treated	p of their ce engaged in heck-up for through a
No effl premise having KLD h water is 12 PPs \$ Not app	luent is discharged outside of the was es. A central workshop exists in Jam Oil and Grease Trap. One Sewage T as been installed in one of the colori s used for gardening and other purpo Human Health Environment Submission: Complied plicable as this is coal beneficiation	hadoba Colliery with Effluent Treatment Plant facilityGreatment Plant (STP) of 50 KLD and one STP of 10ies of Jamadoba and Jamadoba canteen. Their treatedose.Besides carrying out regular periodic health check-uworkers, 10% of the workers identified from workfordactive mining operations shall be subjected to health coccupational diseases and hearing impairment, if any,recognised agency found in the district, and the results	p of their ce engaged in heck-up for through a s reported to Date:
No effl premise having KLD h water is 12 PPs \$ Not app	luent is discharged outside of the was es. A central workshop exists in Jam Oil and Grease Trap. One Sewage T as been installed in one of the colori s used for gardening and other purpo Human Health Environment Submission: Complied plicable as this is coal beneficiation	 hadoba Colliery with Effluent Treatment Plant facility Freatment Plant (STP) of 50 KLD and one STP of 10 fies of Jamadoba and Jamadoba canteen. Their treated Besides carrying out regular periodic health check-u workers, 10% of the workers identified from workford active mining operations shall be subjected to health c occupational diseases and hearing impairment, if any, recognised agency found in the district, and the results this Ministry and to DGMS. 	p of their ce engaged in theck-up for through a s reported to Date: 15/11/2024 land use, a tin a scale of 1: of the project s (for any one s), and the rep
No effl premise having KLD h water i 12 PPs S Not app periodi 13 PPs S Compliant the	Iuent is discharged outside of the wates. A central workshop exists in Jam Oil and Grease Trap. One Sewage T as been installed in one of the colories s used for gardening and other purpor Human Health Environment Submission: Complied plicable as this is coal beneficiation productional Health cer Statutory compliance Submission: Complied Iterational Health Cer	hadoba Colliery with Effluent Treatment Plant facility Greatment Plant (STP) of 50 KLD and one STP of 10 ies of Jamadoba and Jamadoba canteen. Their treated ose.Besides carrying out regular periodic health check-u workers, 10% of the workers identified from workford active mining operations shall be subjected to health c occupational diseases and hearing impairment, if any, recognised agency found in the district, and the results this Ministry and to DGMS.plant. Though PME is done for washery workers ntre. Records of the same has been furnished earlier.For monitoring land use pattern and for post mining series of landuse maps, based on satellite imagery (on 5000) of the core zone and buffer zone, from the start until end of mine life shall be prepared once in 3 years particular season which is consistent in the time series	p of their ce engaged in theck-up for through a s reported to Date: 15/11/2024 land use, a tin a scale of 1: of the project s (for any one s), and the rep

		Government whichever is higher.	
PPs S Not app	ubmission: Complied licable		Date: 15/11/2024
15	MINING PLAN	A Final Mine Closure Plan along with details of Corp be submitted to the Ministry of Environment & Forests before mine closure for approval. Habitat Restoration I mine area shall be carried out using a mix of native spe the original ecosystem, which were conserved in-situ a an identified area within the lease for reintroduction in during mine reclamation and at the post mining stage f restoration and for development of grasslands.	Five year Plan of the excies found in nd ex-situ in the mine
PPs S Not app	ubmission: Complied licable		Date: 15/11/2024
16	Corporate Environmental Responsibility	Corporate Environment Responsibility: a) The Comp a well laid down Environment Policy approved by the Directors. b) The Environment Policy shall prescribe for operating process/procedures to bring into focus any infringements/deviation/violation of the environmental norms/conditions. c) The hierarchical system or Admir of the company to deal with environmental issues and compliance with the environmental clearance condition furnished. d) To have proper checks and balances, the have a well laid down system of reporting of non- compliances/violations of environmental norms to the Directors of the company and/or shareholders or stakel large.	Board of or standard or forest histrative Order for ensuring hs shall be company shall Board of
The Con addresse and com non-com brought Manage OHSAS	es all the issues mentioned. Attached a apliance to Environmental laws and re apliance noticed is corrected at division to the notice of higher management. If ment System: Quality Management System:	blicy approved by the Managing Director and it as an annexure. The status of adherence to the policy gulations is regularly discussed at higher levels. Any onal level. If any issue is beyond our control, it is Moreover, Jamadoba Coal Washery is IMS (Integrated ystem, Environment Management System and nent aspects, impacts and needs and expectation of protection.	Date: 29/11/2024
17	MISCELLANEOUS	No use of fly ash with sand will take place for stowir underground mines.	ig in
	ubmission: Complied I be strictly followed for our captive u	inderground mines.	Date: 15/11/2024
18	Corporate Environmental Responsibility	The proponent shall expedite and implement the pilo convert mine water into drinking/domestic water to sup to the population of Dhanbad and surrounding areas an continue to carry out this activity.	oply the same
Mine wa Treatme capacity	ents Plants (located at Jamadoba, Digw	table water by Tata Steel in our 4 nos. Water wadih, Bhelatand and Malkera having cumulative water is then supplied to our colonies and leasehold	Date: 15/11/2024
19	Corporate Environmental	Tanks/ponds shall be regularly cleaned and maintained	ed. Plantation

Tanks/ every y		ained by TSRDS. Plantation activities are undertaken Further, TSRDS engages with the villagers for	Date: 15/11/2024
20	GREENBELT	Adequate green belt shall be provided around coal ha other areas.	andling and
Greene	Submission: Complied ery has been developed in many areas a en completed, remaining area is also be	round the washery premises. Since the expansion job ing developed. Attached as Annexure.	Date: 29/11/2024
21	Corporate Environmental Responsibility	The proponent shall connect all the villages in the leavith water pipeline connection.	asehold area
All the connec		g supplied safe drinking water through pipeline etres of pipeline connection has been established along	Date: 15/11/2024
22	LAND RECLAMATION	Action plan be developed and implemented for abane ponds and for their restoration to the original land use.	
Action tailing		ailing management system is in place. Abandoned ing. Technical reclamation has taken place in two large planting native species.	Date: 15/11/2024
23	WASTE MANAGEMENT	Fly ash generated from the captive power plant of the utilized for house construction, roads and such uses, st complying to the timeline in the EIA Notification, 200 maintaining proper records.	rictly
PPs S This is	Submission: Complied not applicable as we have ceased the o	utilized for house construction, roads and such uses, st complying to the timeline in the EIA Notification, 200	rictly 6 and Date:
	Submission: Complied not applicable as we have ceased the o	utilized for house construction, roads and such uses, st complying to the timeline in the EIA Notification, 200 maintaining proper records.	rictly 6 and Date: 15/11/2024
PPs S This is April-2 24 PPs S	Submission: Complied not applicable as we have ceased the o 2015.	utilized for house construction, roads and such uses, st complying to the timeline in the EIA Notification, 200 maintaining proper records. peration of our captive Jamadoba power plant since Transportation of fly ash to be done properly by mec covered trucks.	rictly 6 and Date: 15/11/2024
PPs S This is April-2 24 PPs S This is	Submission: Complied not applicable as we have ceased the o 2015. WASTE MANAGEMENT Submission: Complied	utilized for house construction, roads and such uses, st complying to the timeline in the EIA Notification, 200 maintaining proper records. peration of our captive Jamadoba power plant since Transportation of fly ash to be done properly by mec covered trucks.	rictly 6 and Date: 15/11/2024 hanically Date: 15/11/2024 en by TSRDS
PPs S This is April-2 24 PPs S This is 25 PPs S CSR ac providi	Submission: Complied not applicable as we have ceased the o 2015. WASTE MANAGEMENT Submission: Complied not applicable as there is no fly ash bein Corporate Environmental Responsibility Submission: Complied ctivities of TSRDS are managed by a tein ing benefits and improving standard of	 utilized for house construction, roads and such uses, st complying to the timeline in the EIA Notification, 200 maintaining proper records. peration of our captive Jamadoba power plant since Transportation of fly ash to be done properly by mec covered trucks. ing generated since April-2015. The proponent shall expedite the activities undertake over 30 villages in the leasehold area over 15000 hous 	rictly 6 and Date: 15/11/2024 Thanically Date: 15/11/2024 En by TSRDS cholds Date:
PPs S This is April-2 24 PPs S This is 25 PPs S CSR ac providi	Submission: Complied not applicable as we have ceased the o 2015. WASTE MANAGEMENT Submission: Complied not applicable as there is no fly ash bein Corporate Environmental Responsibility Submission: Complied ctivities of TSRDS are managed by a tein ing benefits and improving standard of	 utilized for house construction, roads and such uses, st complying to the timeline in the EIA Notification, 200 maintaining proper records. peration of our captive Jamadoba power plant since Transportation of fly ash to be done properly by mec covered trucks. ing generated since April-2015. The proponent shall expedite the activities undertake over 30 villages in the leasehold area over 15000 hous covering a population of about 1.4 lakh. eam of experts who are dedicatedly involved in living in over 30 villages. The list of activities are 	rictly 6 and Date: 15/11/2024 hanically Date: 15/11/2024 en by TSRDS eholds Date: 29/11/2024

The reg MoEF ຄ		ment protection and management are submitted to ment Statement and the status is uploaded on company	Date: 15/11/2024
28	GREENBELT	The slope of the embankment towards the river shall for stability and shall be stabilized with plantation usin species selected from the study area	
	Submission: Complied shery is about 1.5 kms away from the	Damodar River. Hence it is not applicable.	Date: 15/11/2024
29	GREENBELT	Top soil shall be stored in the earmarked area and us year of its generation for green belt development and f plantation/reclamation.	
	ubmission: Complied re no topsoil dumps hence it is not app	plicable.	Date: 15/11/2024
30	MINING PLAN	No external OB dump shall be created for the expans Monitoring and management of existing reclaimed dur continue until the vegetation becomes self-sustaining. status shall be submitted to the Ministry of Environme	npsites shall Compliance
		and its respective Regional Office on yearly basis.	in & Porests
	Submission: Complied plicable as this is a washery project.		Date: 15/11/2024
			Date: 15/11/2024 hall be OB and l for watering
Not app 31 PPs S There a	MINING PLAN	and its respective Regional Office on yearly basis. Catch drains and siltation ponds of appropriate size s constructed to arrest silt and sediment flows from soil, mineral dumps. The water so collected shall be utilised the mine area, roads, green belt development, etc. The regularly desilted and maintained properly.	Date: 15/11/2024 hall be OB and for watering drains shall b Date:
Not app 31 PPs S There a	MINING PLAN MINING PLAN Cubmission: Complied re no soil or OB dumps in the washery	and its respective Regional Office on yearly basis. Catch drains and siltation ponds of appropriate size s constructed to arrest silt and sediment flows from soil, mineral dumps. The water so collected shall be utilised the mine area, roads, green belt development, etc. The regularly desilted and maintained properly.	Date: 15/11/2024 hall be OB and for watering drains shall b Date: 15/11/2024 capacity shall e the peak joining the
Not app 31 PPs S There a stockya 32 PPs S Garland	MINING PLAN MINING PLAN Gubmission: Complied re no soil or OB dumps in the washery rds located in the washery premises w Risk Mitigation and Disaster Management Gubmission: Complied I drains of adequate size and gradient a	and its respective Regional Office on yearly basis. Catch drains and siltation ponds of appropriate size s constructed to arrest silt and sediment flows from soil, mineral dumps. The water so collected shall be utilised the mine area, roads, green belt development, etc. The regularly desilted and maintained properly. y premises. Only the by-products are stored in the which are sold off within a week. Garland drains (size, gradient and length) and sump be designed keeping 50% safety margin over and abov sudden rainfall and maximum discharge in the area adjuine site. Sump capacity shall also provide adequate r	Date: 15/11/2024 hall be OB and for watering drains shall b Date: 15/11/2024 capacity shall e the peak joining the
Not app 31 PPs S There a stockya 32 PPs S Garland	MINING PLAN MINING PLAN Gubmission: Complied re no soil or OB dumps in the washery rds located in the washery premises w Risk Mitigation and Disaster Management Gubmission: Complied I drains of adequate size and gradient a	and its respective Regional Office on yearly basis. Catch drains and siltation ponds of appropriate size s constructed to arrest silt and sediment flows from soil, mineral dumps. The water so collected shall be utilised the mine area, roads, green belt development, etc. The regularly desilted and maintained properly. y premises. Only the by-products are stored in the which are sold off within a week. Garland drains (size, gradient and length) and sump be designed keeping 50% safety margin over and abov sudden rainfall and maximum discharge in the area adjuine site. Sump capacity shall also provide adequate r to allow proper settling of silt material. already exist around the washery area to channelize the	Date: 15/11/2024 hall be OB and for watering drains shall b Date: 15/11/2024 capacity shall e the peak joining the etention perio Date: 15/11/2024

			15/11/2024
34	AIR QUALITY MONITORING AND PRESERVATION	Crushers at the CHP shall be operated with high effi- filters/water sprinkling system shall be provided to che emissions from crushing operations, conveyor system closed, haulage roads, transfer points, etc.	eck fugitive
The foll Enclosu will pro- is being sprinkle	res around crushers. iii) Belts have b tect the coal mass moving on belt fro minimized. iv) Fixed water sprinkler rs are also being deployed on the roa	nted: i) Dry-fog system at all transfer points of CHP ii) een covered on top and both sides. These arrangements om blowing wind. In this way, the dust getting air borne rs on the haulage roads. v) In addition, movable water ds for dust suppression. vi) Dust Extraction System vii) viii) Concretization of working complex	Date: 15/11/2024
35	MISCELLANEOUS	Drills shall be wet operated only.	
	ubmission: Complied licable as this is coal beneficiation pl	lant	Date: 15/11/2024
36	WATER QUALITY MONITORING AND PRESERVATION	The Washery shall be a zero-discharge and no waste discharged from the washery into the drains/natural was groundwater shall be used for washery operations. Rec shall be used for development and maintenance of great the plant operations.	atercourses. N cycled water
Washery drains/ r	natural water systems. Only mine wa quirement. The recycled water is aga	narge principle. No wastewater is discharged into the ter is utilized for the washery operations as make up in used for plant operations and green-belt	Date: 15/11/2024
37	Risk Mitigation and Disaster Management	The raw coal, washed coal and middling and coal was shall be stacked properly at earmarked site(s) within sh fitted with wind breakers/shields. Adequate measures to ensure that the stored minerals do not catch fire. The shall be not more than 2-3 days.	heds/stockyar shall be taker
The mat	ned system for disposal of rejects/ tai	ckyards located within the washery. We have a well- lings to consumers so that storage period is not more	Date: 15/11/2024
eneral C	conditions		
Sr.No.	Condition Type	Condition Details	
1	MINING PLAN	No change in mining technology and scope of worki made without prior approval of the Ministry of Enviro Forests.	
	ubmission: Complied nts mentioned in the EC letter will be	e strictly followed.	Date: 15/11/2024
2	Statutory compliance	The Regional Office of this Ministry located at Bhop monitor compliance of the stipulated conditions. The I authorities shall extend full cooperation to the office(s	Project

authorities shall extend full cooperation to the office(s) of the

			Date:
	Submission: Complied peen complied with.		15/11/2024
3	Statutory compliance	The environmental statement for each financial year ending 31st March in Form-V is mandated to be submitted by the project proponent tot the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MOEF by E- mail.	
The en Septen compa	nber 2024 vide letter no. JMB/ENV/ES	ar 2023-24 has been submitted to JSPCB on 27th SA/05/569/2024 and it is also uploaded on the nent Statement is also sent to MOEF by email at	Date: 15/11/2024
4	MISCELLANEOUS	No change in the calendar plan of production for qua mineral coal shall be made.	ntum of
	Submission: Complied be strictly followed.		Date: 15/11/2024
5	AIR QUALITY MONITORING AND	Four ambient air quality monitoring stations shall be established the core zone as well as in the buffer zone for PM10, PM2.5, SO2 and NOx monitoring. Location of the stations shall be decided bas on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy meta such as Hg, As, Ni, Cd, Cr, etc carried out at least once in six mon	
	PRESERVATION	with the State Pollution Control Board. Monitoring of I	neavy metals
The Ai Colony Kalima	Submission: Complied ir quality monitoring stations are: (i)Jar y, Jamadoba (Buffer Zone) (iii)Digwad andir area (Buffer Zone) Monitoring of	with the State Pollution Control Board. Monitoring of I	heavy metals in six month Date:
The Ai Colony Kalima	Submission: Complied ir quality monitoring stations are: (i)Jar y, Jamadoba (Buffer Zone) (iii)Digwad andir area (Buffer Zone) Monitoring of	with the State Pollution Control Board. Monitoring of I such as Hg, As, Ni, Cd, Cr, etc carried out at least once madoba Group Office (Core Zone) (ii)New Village ih 12 No. Colony (Buffer Zone) (iv)6 and 7 Pits heavy metals in ambient air is being performed by an	Date: 29/11/2024 NOx) and hitoring data ts concerned rd and the andom lent
The Air Colony Kalima indepe 6 6 PPs Ambie 2023 is JSPCE	Submission: Complied ir quality monitoring stations are: (i)Jar y, Jamadoba (Buffer Zone) (iii)Digwad andir area (Buffer Zone) Monitoring of ndent laboratory (recognised by NABL Statutory compliance Submission: Complied ent air quality report (PM10, PM 2.5, So s attached as Annexure II. Additionally and NABL accredited Laboratory for	 with the State Pollution Control Board. Monitoring of I such as Hg, As, Ni, Cd, Cr, etc carried out at least once madoba Group Office (Core Zone) (ii)New Village ih 12 No. Colony (Buffer Zone) (iv)6 and 7 Pits Theavy metals in ambient air is being performed by an 2 and JSPCB). The results are enclosed as Annexure II. Data on ambient air quality (PM10, PM 2.5, SO2 and heavy metals such as Hg, As, Ni, Cd, Cr and other mor shall be regularly submitted to the Ministry including i Regional Office and to the State Pollution Control Board Once in six months. Ra verification of samples through analysis from independiaboratories recognized under the EPA rules, 1986 shall 	Date: 29/11/2024 NOx) and hitoring data ts concerned rd and the andom lent

		ear plugs/muffs.	
Regula	Submission: Complied ar noise survey is being conducted in th ed with ear-plugs/ muffs in high noise	e underground work environment. Workers are areas.	Date: 15/11/2024
8	WATER QUALITY MONITORING AND PRESERVATIONIndustrial wastewater (workshop and wastewater from the mi shall be properly collected, treated so as to conform to the stand prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time before discharge of works effluents.		the standards nd 31st re discharge.
No wa back fo		shery premises. 100 percentage water is recirculated tral workshop and garage in Jamadoba Effluent e trap has been provided.	Date: 15/11/2024
9	AIR QUALITY MONITORING AND PRESERVATION	Vehicular emissions shall be kept under control and monitored. Vehicles used for transporting the mineral covered with tarpaulins and optimally loaded.	
Only the through the second se		tes are being allowed to operate. Coal transportation es till washery and it is ensured that only optimally allowed into the washery premises.	Date: 15/11/2024
10	Statutory compliance	Monitoring of environmental quality parameters shall through establishment of adequate number and type of monitoring and analysis equipment in consultation wit data got analysed through a laboratory recognized und 1986.	pollution h SPCB and
We hay and an	alysis is also done at regular intervals l stalled a Continuous Ambient Air Qua	Laboratory with qualified personnel. The monitoring by a JSPCB and NABL recognized laboratory. We have lity Monitoring Station at Jamadoba for real time	Date: 15/11/2024
11	Human Health Environment	Personnel working in dusty areas shall wear protective devices and they shall also be provided with adequate information on safety and health aspects.	
Person		vided with dust masks and have been given awareness PME (Periodic Medical Examinations) are being done.	Date: 15/11/2024
12	Human Health Environment	Occupational health surveillance programme of the v undertaken periodically to observe any contractions du to dust and to take corrective measures, if needed and maintained thereof. The quality of environment due to and the health and safety issues of the outsourced man be addressed by the company while outsourcing.	e to exposure records outsourcing
The oc Occupa Medica	ational Health Department, Tata Centra al Examination) centre approved by DO	nme of the workers is done regularly by our al Hospital, Jamadoba. We have a PME (Periodic GMS where annually 20 percentage of the workers nining operations are subjected to full medical checkup	Date: 15/11/2024

		xamination is also done by PME centre.	
13	MISCELLANEOUSA separate environmental management cell with suitable personnel shall be set up under the control of a Senior Exe will report directly to the Head of the company.		
We ha	Submission: Complied ve a separate Environmental Manaş nmental Cell is directly to General	gement Cell with qualified personnel. The reporting of Manager of the Division.	Date: 15/11/2024
14	Corporate Environmental ResponsibilityThe funds earmarked for environmental protection be kept in separate account and shall not be diverted purpose. Year-wise expenditure shall be reported to t its Regional Office at Bhubaneswar.		or other
The Er with le		for Environmental protection measures and for complying conmental expenditure for the financial year 2023-24 is Rs.	Date: 15/11/2024
15	Statutory compliance	The Project authorities shall advertise at least in two newspapers widely circulated around the project, one be in the vernacular language of the locality concerned days of the clearance letter informing that the project accorded environmental clearance and a copy of the c available with the State Pollution control Board and m at the website of the ministry of Environment & Fores http://envfor.nic.in.	of which shall d within seven has been learance letter hay also be see
	Submission: Complied peen complied with. Attached as an	Annexure.	Date: 29/11/2024
16	Statutory compliance	A copy of the environmental clearance letter shall be marked to concerned Panchayat/Zila Parishad, Municipal Corporation or Urt Local Body and local NGO, if any, from whom any suggestion/representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on company's website.	
PPs Compl	Submission: Complied lied		Date: 29/11/2024
17	Statutory complianceA copy of the clearance letter shall be displayed on the website of the concerned State Pollution Control Board. The EC letter shall a be displayed at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.		letter shall als
	Submission: Complied peen complied with.		Date: 15/11/2024
18	Statutory complianceThe clearance letter shall be uploaded on the company's website The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in the public domain. The monitoring data of environmental quality parameters (air, water, noise and soil) and critical pollutants such as PM10, PM2.5, SO2 and NOx (ambient and stack if any) and critical sector parameters shall also be displayed at the entrance of the project		shall also be ad updated at the public

	· · · · ·		
The clear yearly c		n the company website. The compliance st led in company website. The display of in	
19	19 Statutory compliance The project proponent shall submit six monthly reports on the of compliance of the stipulated environmental clearance conditi (both in hard copy and in e-mail) to the respective Regional Of the MOEF, the respective Zonal offices of CPCB and the SPCE		vironmental clearance conditions o the respective Regional Office
	ubmission: Complied een complied with.		Date: 15/11/2024
		Visit Remarks	
ast Site	Visit Report Date:	N/A	
ddition	al Remarks:		
		ne details submitted by project proponent. on the compliance of the project. This is st reference purpose.	
		on the compliance of the project. This is st	
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HALF YEARLY COMPLIANCE REPORT (PERIOD: APRIL'24 – SEPTEMBER'24)

JAMADOBA COAL WASHERY (CAPACITY: EXPANSION FROM 1 TO 2 MTPA RAW COAL THROUGHPUT)

TEHSIL: JHARIA, DIST: DHANBAD, JHARKHAND



TATA STEEL LIMITED, JHARIA DIVISION

P.O.- JAMADOBA, DIST. - DHANBAD, STATE- JHARKHAND, PIN CODE – 828112.

ENVIRONMENTAL CLEARANCE GRANTED VIDE LETTER NO. - J-11015/203/2011-IA.II(M) DATED- 03.03.2014 ISSUED BY GOVT. OF INDIA, MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE, NEW DELHI.

S. No.	Condition	Compliance Status
Specific	Condition	
(i)	Adequate green belt shall be provided around coal handling and other areas.	Greenery has been developed in many areas around the washery premises. Since the expansion job has been completed, remaining area is also being developed. Attached as Annexure I.
(ii)	Action plan be developed and implemented for abandoned tailing ponds and for their restoration to the original land use.	Action plan for cut-off of tailing ponds from tailing management system is in place. Abandoned tailing ponds have been reclaimed by backfilling. Technical reclamation have taken place in two large ponds. Biological reclamation is going on by planting native species.
(iii)	Fly ash generated from the captive power plant of the washery be utilized for house construction, roads and such uses, strictly complying to the timeline in the EIA Notification, 2006 and maintaining proper records.	This is not applicable as we have ceased the operation of our captive Jamadoba power plant since April'15.
(iv)	No use of fly ash with sand will take place for stowing in underground mines.	This will be strictly followed for our captive underground mines.
(v)	Transportation of fly ash to be done properly by mechanically covered trucks.	This is not applicable as there is no fly ash being generated since April'15.
(vi)	The proponent shall connect all the villages in the leasehold area with water pipeline connection.	All the villages in the leasehold areas are being supplied safe drinking water through pipeline connection. A network of more than 22000 metres of pipeline connection has been established along with 33 water tanks (capacity of 4500 litres).
(vii)	The proponent shall expedite and implement the pilot plant to convert mine water into drinking/domestic water to supply the same to the population of Dhanbad and surrounding areas and shall continue to carry out this activity.	Mine water is already being converted into potable water by Tata Steel in our 4 nos. Water Treatments Plants (located at Jamadoba, Digwadih, Bhelatand and Malkera having cumulative capacity of around 8000 KL/D). The treated water is then supplied to our colonies and leasehold villages. This will continue in future too.

Letter no	J-11015/203/2011-IA.II (M) dated Marc	n 3, 2014
(viii)	Tanks/ponds shall be regularly cleaned and maintained. Plantation activities shall be intensified in the mine areas.	Tanks/ ponds are regularly cleaned and maintained by TSRDS. Plantation activities are undertaken every year in the barren mine leasehold areas. Further, TSRDS engages with the villagers for plantation in the village lands.
(ix)	The proponent shall expedite the activities undertaken by TSRDS in over 30 villages in the leasehold area over 15000 households covering a population of about 1.4 lakh.	CSR activities of TSRDS are managed by a team of experts who are dedicatedly involved in providing benefits and improving standard of living in over 30 villages. The list of activities are developed in consultation with the village representatives and implemented in a time-bound manner.
(x)	The CSR cost should be Rs 5 per Tonnes of Coal produced which should be adjusted as per the annual inflation.	The proposed CSR expenditure for the entire company is decided as per the new Company Rules. Once the CSR budget for company is fixed, a share of that amount is dedicated and utilized for implementing the CSR activities at our Jharia Division level. The CSR expenditure for FY24 is Rs. 21.81 crores.
(xi)	Cost for additional environmental protection measures shall be not less than Rs. 503.00 lakhs. The status of implementation including costs incurred shall be regularly reported to this Ministry and its respective Regional Office in the region as part of the compliance report and also uploaded on the company website.	The regular expenditure incurred for environment protection and management are submitted to MoEF&CC & SPCB in Annual Environment Statement and the status is uploaded on company website as a part of compliance report of AES.
(xii)	The slope of the embankment towards the river shall be at least 1:3 for stability and shall be stabilized with plantation using native species selected from the study area.	The washery is about 1.5 kms away from the Damodar River. Hence it is not applicable.
(xiii)	Top soil shall be stored in the earmarked area and used within a year of its generation for green belt development and for plantation/reclamation.	There are no topsoil dumps hence it is not applicable.

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(xiv)	No external OB dump shall be created for the expansion project. Monitoring and management of existing reclaimed dumpsites shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its respective Regional Office on yearly basis.	Not applicable as this is a washery project.
(xv)	Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected shall be utilised for watering the mine area, roads, green belt development, etc. The drains shall be regularly desilted and maintained properly.	There are no soil or OB dumps in the washery premises. Only the by-products are stored in the stockyards located in the washery premises which are sold off within a week.
(xvi)	Garland drains (size, gradient and length) and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material.	Garland drains of adequate size and gradient already exist around the washery area to channelize the surface runoff. The runoff is diverted to the tailing ponds and clear water is utilized in the washery.
(xvii)	Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.	Not applicable as we do not have any opencast mines.
(xviii)	Crushers at the CHP shall be operated with high efficiency bag filters/water sprinkling system shall be provided to check fugitive emissions from crushing operations, conveyor system which shall be closed, haulage roads, transfer points, etc.	The following measures have been implemented: i) Dry-fog system at all transfer points of CHP ii) Enclosures around crushers. iii) Belts have been covered on top and both sides. These arrangements will protect the coal mass moving on belt from blowing wind. In this way, the dust getting air borne is being minimized. iv) Fixed water sprinklers on the haulage roads.

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		v) In addition, movable water sprinklers are
		also being deployed on the roads for dust
		suppression.
		vi) Dust Extraction System
		vii) Strengthening of tailing management
		system
		viii) Concretization of working complex
(Duille shell be wet operated only	
(xix)	Drills shall be wet operated only.	Not applicable as this is coal beneficiation
		plant
(xx)	Controlled blasting shall be practiced	Not applicable as this is coal beneficiation
	with use of delay detonators and only	plant.
	during daytime. The mitigative	
	measures for control of ground	
	vibrations and to arrest the fly rocks and	
	boulders shall be implemented.	
(xxi)	The Washery shall be a zero-discharge	Washery is already operating on a zero-
	and no wastewater shall be discharged	discharge principle. No wastewater is
	from the washery into the drains/natural	discharged into the drains/ natural water
	watercourses. No groundwater shall be	systems. Only mine water is utilized for the
	used for washery operations. Recycled	washery operations as make up water
	water shall be used for development and	requirement. The recycled water is again
	-	
	maintenance of green belt and in the	used for plant operations and green-belt
	plant operations.	development.
(xxii)	The raw coal, washed coal and middling	The material is being stacked properly at
	and coal wastes (rejects) shall be stacked	stockyards located within the washery. We
	properly at earmarked site(s) within	have a well-established system for disposal
	sheds/stockyards fitted with wind	of rejects/ tailings to consumers so that
	breakers/shields. Adequate measures	storage period is not more than 2-3 days.
	shall be taken to ensure that the stored	
	minerals do not catch fire. The storage	
	period shall be not more than 2-3 days.	
(xxiii)	The proponent shall maintain proper	Proper records are being maintained and the
	records of the ash content of raw (ROM)	details are uploaded on the company website.
	coal, clean coal, middling and coal	
	rejects along with quantum of raw coal	
	obtained and washed and dispatched	
	every month and the same shall be	
	uploaded on the company website every	
	month.	
(All the internal reads have have a start
(xxiv)	All internal roads shall be concreted or	All the internal roads have been concreted
	black topped and the approach roads	while the approach roads are black topped.
	used for the project shall be blacked	There is a facility for parking of trucks within
	topped. Facilities for parking of trucks	the unit.

	J-11015/203/2011-1A.11 (M) dated Marc	11 3, 2014
	carrying raw coal from the linked	
	coalmines shall be created within the	
	Unit.	
(xxv)	Roads used for coal transportation to the	There is no linked DRI/TPP.
	linked DRI/TPP shall be developed with	- Raw coal is received via underground coal
	3-tier avenue plantation using a mix of	conveyor belt network from captive
	native species. The trucks used for coal	collieries.
	transportation shall be high capacity	comenes.
	trucks. Drivers of trucks for coal	- Clean coal is dispatched via rail from the
	transportation shall be engaged based on	Rail-yard situated on the washery premises.
	past records of road safety and	The clean coal is kept in storage bins and
	compliance of safety regulations and	directly transferred to the rail wagons
	shall be suitably sensitized about road	through covered coal-conveying system.
	safety and maintenance of vehicles to	- As for the trucks moving for transportation
	keep vehicular emissions to be within	of tailings and rejects are properly covered
	prescribed limits.	with tarpaulin. All the given provisions
		related to road safety and driver competence
		are being strictly complied with.
(xxvi)	The roads (internal/approach and roads	Fixed Water sprinklers have already been
	used for the project) shall be regularly	installed in the washery premises. Plantation
	cleaned with mechanical sweepers and	along the road-side is done wherever feasible.
	with water sprinklers. A 3-tier avenue	A three-tier green belt development is in
	-	
	plantation shall be developed along the	progress
	major approach roads, internal roads and	
(••)	nearby roads used by the company.	Concerns have been developed in some some
(xxvii)	Green belt shall be developed along the	Greenery has been developed in many areas
	areas such as the washery unit, crushing	around the washery premises. Saplings have
	unit, and stockyards and at transfer	been planted along the boundary of washery
	points and in between mine operations	for greenbelt development.
	and habitations.	
(xxviii)	Hoppers of the coal crushing unit at the	Dry-fog dust suppression system has been
	crushing shed and washery unit shall be	already installed to suppress the dust
	fitted with high efficiency bag	generated at CHP and transfer points of belt
	filters/Dust extractors and mist spray	conveyor systems. Fixed-type water
	water sprinkling system shall be installed	sprinklers are also installed on the internal
	and operated effectively at all times of	roads of the washery. These are always
	operation to check fugitive emissions	operated effectively to check the fugitive
	from crushing operations, transfer points	emissions.
	of belt conveyor systems which shall be	Fugitive dust emission monitoring is done on
	closed and from transportation roads.	regularly. The values are within the stipulated
		norms.

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(xxix)	* *	It is being followed.
	such as stones, shale and other wastes of	
	an ash content of 77% or more only shall	
	be dumped into the mine voids. Coal	
	rejects with an ash content of 76% or less	
	shall be fully utilized for power	
	generation in linked TPP.	
(xxx)	Regular monitoring of groundwater level and quality including levels of heavy metals such as Hg, Cd, Cr, Se, etc shall be carried out by establishing a network of existing wells and construction of new peizometers. The monitoring for quantity and quality of ground water as per IS: 10500 shall be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons. Proper records of the data thus collected shall be maintained submitted to the Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of	The monitoring of groundwater level and quality is done regularly as per the requirements. The groundwater quality report & groundwater level are provided in Annexure-II. The monitoring of heavy metals such as Hg, Cd, Cr, Se, etc in the groundwater is done on quarterly basis by NABL accredited third party and the report has been provided in Annexure-II.
(xxxi)	monitoring. As the entire mine water is proposed to be used for the mine-cum-washery operations, measures shall be taken for recharging ground water in and around the mine in the study area. A Plan for water conservation and recharge measures of ground water along with budgetary provisions be prepared and implemented in consultation with the Central/State Ground Water Board to mitigate the adverse impact of mining which may lead to depletion of ground water in the area. The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource in case monitoring of groundwater levels indicate decline of water table. Any additional water requirement for mining operation shall	Some of the water pumped out during underground mining activity is re-circulated back into the mine for the purpose of stowing. Backfilling of mine voids by stowing is done using sand which is having the porosity to hold the underground water thus helping aquifer to retain the underground water. Further, there are several ponds existing on the surface of the mining lease which act as natural reservoirs for recharging ground water. These ponds/ tanks are regularly cleaned and maintained by our CSR department. As per the hydro-geological report, the variation in the ground water level is only seasonal. The water requirement of the nearby villages is being met by the company already. Now piped drinking water is being provided.

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	be met from rainwater use only. The	
	project authorities shall meet water	
	requirement of nearby village(s) in case	
	the village wells go dry due to	
	dewatering of mine.	
(xxxii)	ETP shall also be provided for treatment	No effluent is discharged outside of the
	of effluents from workshop, CHP and an	washery. There is no separate workshop in
	STP shall be provided in the colony and	the washery premises. A central workshop
	the treated effluents shall be used for	exists in Jamadoba Colliery with Effluent
	green belt development. Outflow of	Treatment Plant facility having Oil and
	rainfall, if any, from the mine shall meet	Grease Trap. One Sewage Treatment Plant
	prescribed norms and the water quality	(STP) of 50 KLD and one STP of 10 KLD
	of such discharge including levels of	has been installed in one of the colonies of
	heavy metals such as Hg, Cd, Cr., Se, etc	Jamadoba and Jamadoba canteen. Their
	shall be monitored at the exit points and	treated water is used for gardening and other
	records maintained thereof and also	purpose.
	uploaded on the company website.	
	Online monitoring equipment shall be	
	installed by the proponent to ensure that	
	the water quality parameters of mine	
	water discharge are well within the	
	General Discharge Standards under EP,	
	Rules, 1986.	
(xxxiii)	Besides carrying out regular periodic	Not applicable as this is coal beneficiation
	health check-up of their workers, 10% of	plant. Though PME is done for washery
	the workers identified from workforce	workers periodically at our Occupational
	engaged in active mining operations	Health centre. Records of the same has been
	shall be subjected to health check-up for	furnished earlier.
	occupational diseases and hearing	
	impairment, if any, through a recognised	
	agency found in the district, and the	
	results reported to this Ministry and to	
	DGMS.	
(xxxiv)	For monitoring land use pattern and for	Complied.
	post mining land use, a time series of	The land use study has been completed by
	landuse maps, based on satellite imagery	Indian School of Mines (IIT-ISM) Dhanbad
	(on a scale of 1: 5000) of the core zone	and the report is submitted vide letter no.
	and buffer zone, from the start of the	JMB/ENV/BAC/38/467/2021 dated:
	project until end of mine life shall be	27.06.2021 to Regional Office, MoEFCC at
	prepared once in 3 years (for any one	Ranchi
	particular season which is consistent in	
	the time series), and the report submitted	

	to MOEF and its concerned Regional	
	Office in the region.	
(xxxv)	Land oustees shall be compensated as	Not applicable
	per the norms laid out R&R Policy of	
	CIL or the National R&R Policy or R&R	
	Policy of the State Government	
	whichever is higher.	
(xxxvi)	A Final Mine Closure Plan along with	Not applicable.
	details of Corpus Fund shall be	
	submitted to the Ministry of	
	Environment & Forests five year before	
	mine closure for approval. Habitat	
	Restoration Plan of the mine area shall	
	be carried out using a mix of native	
	species found in the original ecosystem,	
	which were conserved in-situ and ex-situ	
	in an identified area within the lease for	
	reintroduction in the mine during mine	
	reclamation and at the post mining stage	
	for habitat restoration and for	
	development of grasslands.	
(xxxvii)	Corporate Environment Responsibility:	The Company already has an Environment
	a) The Company shall have a well laid	Policy approved by the Managing Director
	down Environment Policy approved by	and it addresses all the issues mentioned.
	the Board of Directors.	Attached as an annexure-III .
		The status of adherance to the policy and
	b) The Environment Policy shall	The status of adherence to the policy and
	prescribe for standard operating	compliance to Environmental laws and
	process/procedures to bring into focus	regulations is regularly discussed at higher
	any infringements/deviation/violation of	levels. Any non-compliance noticed is
	the environmental or forest	corrected at divisional level. If any issue is
	norms/conditions.	beyond our control, it is brought to the notice
	c) The hierarchical system or	of higher management.
	Administrative Order of the company to	Managara Jame Jaka Cash W. 1
	deal with environmental issues and for	Moreover, Jamadoba Coal Washery is IMS
	ensuring compliance with the	(Integrated Management System: Quality
		Management System, Environment
	environmental clearance conditions shall	
	environmental clearance conditions shall be furnished	
	be furnished.	unit addressing all environment aspects,
		Management System and OHSAS) certified unit addressing all environment aspects, impacts and needs and expectation of
	be furnished.	unit addressing all environment aspects,

Letter no		
	compliances/violations of environmental	
	norms to the Board of Directors of the	
	company and/or shareholders or	
	stakeholders at large.	

B.	GENERAL CONDITIONS	
(i)	No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.	The points mentioned in the EC letter will be strictly followed.
(ii)	No change in the calendar plan of production for quantum of mineral coal shall be made.	It will be strictly followed.
(iii)	Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for PM10, PM2.5, SO2 and NOx monitoring. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc carried out at least once in six months.	The Air quality monitoring stations are: (i)Jamadoba Group Office (Core Zone) (ii)New Village Colony, Jamadoba (Buffer Zone) (iii)Digwadih 12 No. Colony (Buffer Zone) (iv)6&7 Pits Kalimandir area (Buffer Zone) Monitoring of heavy metals in ambient air is being performed by an independent laboratory (recognised by NABL and JSPCB). The results are enclosed as Annexure-II.
(iv)	Data on ambient air quality (PM10, PM 2.5, SO2 and NOx) and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly submitted to the Ministry including its concerned Regional Office and to the State Pollution Control Board and the Central Pollution Control Board once in six months. Random verification of samples through analysis from independent laboratories recognized under the EPA rules, 1986 shall be furnished as part of compliance report.	Ambient air quality report (PM10, PM 2.5, SO2 and NOx) for the period from Oct'23 to Mar'24 is attached as Annexure-II. Additionally, the third party monitoring is being done through a JSPCB & NABL accredited Laboratory for ambient air quality (PM10, PM 2.5, SO2, NOx, CO, NH3, O3) and heavy metals (As, Ni, Cd and Cr). The results are enclosed as Annexure-II.
(v)	Adequate measures shall be taken for control of noise levels below 85 dBA	Regular noise survey is being conducted in the underground work environment. Workers are

Letter no	J-11015/203/2011-IA.II (M) dated Mar	
	in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.	provided with ear-plugs/ muffs in high noise areas.
(vi)	Industrial wastewater (workshop and wastewater from the mine) shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed before discharge of workshop effluents.	No waste-water is discharged outside the washery premises. 100% water is recirculated back for re-use in the washery. There is a central workshop and garage in Jamadoba Effluent Treatment Plant which includes oil and grease trap has been provided.
(vii)	Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.	Only the vehicles having valid PUC certificates are being allowed to operate. Coal transportation through trucks is done only from BCCL mines till washery and it is ensured that only optimally loaded trucks with proper tarpaulin cover are allowed into the washery premises.
(viii)	Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with SPCB and data got analysed through a laboratory recognized under EP Rules, 1986.	We have a fully equipped Environment Cell Laboratory with qualified personnel. The monitoring and analysis is also done at regular intervals by a JSPCB & NABL recognized laboratory. We have also installed a Continuous Ambient Air Quality Monitoring Station at Jamadoba for real time monitoring.
(ix)	Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.	Persons working in dusty area have been provided with dust masks & have been given awareness training on safety & health aspects. Regular PME (Periodic Medical Examinations) are being done.
(x)	Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed and records maintained thereof. The quality of environment due to outsourcing and the health and safety	The occupational health surveillance programme of the workers is done regularly by our Occupational Health Department, Tata Central Hospital, Jamadoba. We have a PME (Periodic Medical Examination) centre approved by DGMS where annually 20% of the workers identified from workforce engaged in active mining operations are

	J-11015/203/2011-1A.11 (M) dated Mar				
	issues of the outsourced manpower	subjected to full medical checkup including			
	should be addressed by the company	hearing impairment checkup, etc. These			
	while outsourcing.	results are regularly submitted to DGMS as			
		per mines rules. Contractual workers health			
		examination is also done by PME centre.			
(xi)	A separate environmental management	We have a separate Environmental			
	cell with suitable qualified personnel	Management Cell with qualified personnel.			
	shall be set up under the control of a	The reporting of Environmental Cell is directly			
	Senior Executive, who will report	to General Manager of the Division.			
	directly to the Head of the company.				
(xii)	The funds earmarked for environmental	The Environment Cell has a separate fund for			
	protection measures shall be kept in	Environmental protection measures and for			
	separate account and shall not be	complying with legal requirements. The			
	diverted for other purpose. Year-wise	annual environmental expenditure for the			
	expenditure shall be reported to this	financial year 2022-23 is Rs. 1263.35 lakhs.			
	Ministry and its Regional Office at	manciai year 2022-25 is Ks. 1205.55 lakiis.			
	Bhubaneswar.				
	Bhubaneswar.				
(xiii)	The Project authorities shall advertise	It has been complied with. Attached as an			
	at least in two local newspapers widely	Annexure-IV.			
	circulated around the project, one of				
	which shall be in the vernacular				
	language of the locality concerned				
	within seven days of the clearance letter				
	informing that the project has been				
	accorded environmental clearance and				
	a copy of the clearance letter is				
	available with the State Pollution				
	control Board and may also be seen at				
	the website of the ministry of				
	Environment & Forests at				
	http://envfor.nic.in.				
(xiv)	A copy of the environmental clearance	It has been complied with. Attached as an			
()	letter shall be marked to concerned	Annexure-V.			
	Panchayat/Zila Parishad, Municipal				
	Corporation or Urban Local Body and				
	local NGO, if any, from whom any				
	suggestion/representation has been				
	received while processing the proposal.				
	A copy of the clearance letter shall also				
	be displayed on the company's website.				
(vv)	A copy of the clearance letter shall be	It has been complied with.			
(xv)	displayed on the website of the	n nas been complied with.			
	uispiayed on the website of the				

Letter no	J-11015/203/2011-IA.II (M) dated Mar	ch 3, 2014
	concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.	
(xvi)	The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in the public domain. The monitoring data of environmental quality parameters (air, water, noise and soil) and critical pollutants such as PM10, PM2.5, SO2 and NOx (ambient and stack if any) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mines office and in corporate office and on the company's website.	The clearance letter has been uploaded on the company's website. The compliance status (as Half-yearly compliance report) is being uploaded in company's website. The display of information near the washery's office has been provided.
(xvii)	The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the MOEF, the respective Zonal offices of CPCB and the SPCB.	It has been complied with.
(xviii)	The Regional Office of this Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/ information/monitoring reports.	It will be complied with.
(xix)	The environmental statement for each financial year ending 31st March in Form-V is mandated to be submitted by the project proponent tot the concerned State Pollution Control Board as	The environmental statement for financial year 2022-23 has been submitted to JSPCB on 29th September 2023 vide letter no. JMB/ENV/ESSA/05/734/2023 and it is also uploaded on the company website. The soft

prescribed under the Environment	copy of Environment Statement is also sent to
(Protection) Rules, 1986, as amended	MOEF by email at ro.ranchi-mef@gov.in.
subsequently, shall also be uploaded on	
the company's website along with the	
status of compliance of EC conditions	
and shall be sent to the respective	
Regional Offices of the MOEF by E-	
mail.	

ANNEXURE-I

Statement showing measures taken for increasing tree and forest cover

Plantation activities are carried out in the barren land of the colliery leasehold area to increase the green cover as well as in the washery premises. Care is taken to plant only the native species so that native ecosystem is preserved. Following are the details of mass plantation in our leasehold area of Jharia Division for greenery development.

Year	No. of trees planted
FY14	10195
FY15	15800
FY16	10000
FY17	10900
FY18	8500
FY19	10000
FY20	50235
FY21	3000
FY22	10005
FY23	25117
FY24	12452
FY25	12263

Glimpses of plantation activities for FY25:















Annexure- I Greenbelt Development Report

Green belt developed around JCPP is given in the pictures below. Plantation in this monsoon has been done in JCPP to enhance the green belt. The plantations are done in areas in front of MCC building, and near the boundary wall of JCPP to enhance the green cover around the operational areas of washery. Since the washery is in construction phase, three tier plantation has been done in some patches around the boundary wall of the washery premises. Once the washery starts to operate, further plantation will be taken up.



Picture: Existing Green Belt around JCPP

Photographs of some recent plantation activities in this monsoon season are shown below:



Picture: Plantation in area in front of MCC building(JCPP) during this monsoon season.



Picture: Plantation around some patches of the boundary wall of washery (JCPP) during this monsoon season.

Ambient Air Quality, Ambient Noise Quality, Effluent Water and Groundwater Quality Report (Period- April'24 to September'24)

Annexure- II

TATA STEEL LIMITED TATA STEEL LIMITED JHARIA DIVISION

Sr.Manager, Jamadoba Colliery Sr.Manager, Digwadih Colliery Sr.Manager, 6 & 7 Pits Colliery Head, Jamadoba Coal Washery CMO, Tata Central Hospital, Jamadoba

Ref: JMB /ENV /LAB /02 / 258 / 24 Date: 08 / 05 / 2024

Re: AIR QUALITY REPORT

We wish to inform you that Air Quality Monitoring was carried out in JAMADOBA GROUP in the month of APRIL'2024. The results are as given below.

Core zone (as per Ambient Air quality standards for coal mines notified vide notification G.S.R. 742(E) dated-25.09.2000

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO2 24 Hourly Limit-120 µg/m ²	NOx 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	05.04.24	Clear	245.2	92.6	18.1	22.7

Buffer zone (as per NAAQS 2009 for Ambient Air quality standards)

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM 10 24 Hourly Limit-100 µg/m ³	PM 2.5 24 Hourly Limit- 60 µg/m ³	SO ₂ 24 Hourly Limit-80 µg/m ³	NOx 24 Hourly Limit-80 µg/m ³
1	Jamadoba Group Office	23°42°15.3" N/ 86°24'11" E	03.04.24	Clear	85.1	45.7	16.8	19.4
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	04.04.24	Clear	87.9	47.4	17.0	20,3
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	09.04.24	Clear	73.5	32.6	18.1	21.7
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	08.04.24	Clear	70.2	29.8	15.9	18.6

Note: PM 10 - Less than 10-micron Particulate Matter

PM_{2.5} - Less than 2.5-micron Particulate Matter µg - Microgram

This is for your information and necessary action please.

Emaher .

Lab. Assistant (Environment)

Area Manager (Environment)

ENVIRONMENT CELL LABORATORY, JAMADOBA AUTHORIZED VIDE LETTER NO. B – 3922 DATED- 30.08.2012 BY JHARKHAND STATE POLLUTION CONTROL BOARD, RANCHI.

Annexure- II

TATA STEEL LIMITED JHARIA DIVISION

Sr.Manager, Jamadoba Colliery Sr.Manager, Digwadih Colliery Sr.Manager, 6 & 7 Pits Colliery Head, Jamadoba Coal Washery CMO, Tata Central Hospital, Jamadoba

Ref: JMB /ENV /LAB /02 / 330 / 24 Date: 03/06 / 2024

Re: AIR QUALITY REPORT

We wish to inform you that Air Quality Monitoring was carried out in JAMADOBA GROUP in the month of MAY'2024. The results are as given below.

Core zone (as per Ambient	Air quality standards for coal mines notified v	vide notification G.S.R.
	742(E) dated-25.09.2000	

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO2 24 Hourly Limit-120 µg/m ³	NOx 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	10.05.24	Clear	237.9	89.3	17.8	19.4

Buffer zone (as per NAAQS 2009 for Ambient Air quality standards)

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM 10 24 Hourly Limit-100 μg/m ³	PM 2.5 24 Hourly Limit- 60 µg/m ³	SO2 24 Hourly Limit-80 µg/m ³	NOx 24 Hourly Limit-80 µg/m ³
1	Jamadoba Group Office	23°42'15.3" N/ 86°24'11" E	16.05.24	Clear	78.4	37.2	19.3	21.5
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	13.05.24	Clear	80.6	40.1	18.2	22.1
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	14.05.24	Clear	70.1	30.3	15.9	17.8
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	15.05.24	Clear	72.9	32.6	14.7	17.2

Note: PM 10 - Less than 10-micron Particulate Matter

PM2.5 - Less than 2.5-micron Particulate Matter µg - Microgram

This is for your information and necessary action please.

Emchato.

Lab. Assistant (Environment)

Area Manager (Environment)

ENVIRONMENT CELL LABORATORY, JAMADOBA AUTHORIZED VIDE LETTER NO. B – 3922 DATED- 30.08.2012 BY JHARKHAND STATE POLLUTION CONTROL BOARD, RANCHI.

Annexure- II

TATA STEEL LIMITED JHARIA DIVISION

Sr.Manager, Jamadoba Colliery Sr.Manager, Digwadih Colliery Sr.Manager, 6 & 7 Pits Colliery Head, Jamadoba Coal Washery CMO, Tata Central Hospital, Jamadoba

Ref: JMB /ENV /LAB /02 / 397 / 24 Date: 03 / 07 / 2024

Re: AIR QUALITY REPORT

We wish to inform you that Air Quality Monitoring was carried out in JAMADOBA GROUP in the month of JUNE'2024. The results are as given below.

Core zone (as per Ambient Air quality	standards for coal mines notified vide notification G.S.R.
74	2(E) dated-25.09.2000

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO2 24 Hourly Limit-120 µg/m ³	NOx 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	04.06.24	Clear	241.7	87.1	18.7	21.9

Buffer zone (as per NAAQS 2009 for Ambient Air quality standards)

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM 10 24 Hourly Limit-100 µg/m ³	PM 2.5 24 Hourly Limit- 60 µg/m ³	SO2 24 Hourly Limit-80 µg/m ³	NOx 24 Hourly Limit-80 µg/m ³
1	Jamadoba Group Office	23°42'15.3" N/ 86°24'11" E	07.06.24	Clear	94.2	51.8	20.8	22.1
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	05.06.24	Clear	86.2	45.9	17.2	20.8
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	06.06.24	Clear	82.4	43.6	16.8	19.5
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	10.06.24	Clear	90.8	48.5	15.2	18.6

Note: PM 10 - Less than 10-micron Particulate Matter

PM_{2.5} - Less than 2.5-micron Particulate Matter µg - Microgram

This is for your information and necessary action please.

Emphato.

Lab. Assistant (Environment)

Area Manager (Environment)

ENVIRONMENT CELL LABORATORY, JAMADOBA AUTHORIZED VIDE LETTER NO. B – 3922 DATED- 30.08.2012 BY JHARKHAND STATE POLLUTION CONTROL BOARD, RANCHI.

TATA STEEL LIMITED JHARIA DIVISION

Sr.Manager, Digwadih Colliery Sr.Manager, 6 & 7 Pits Colliery Head, Jamadoba Coal Washery CMO, Tata Central Hospital, Jamadoba

Ref: JMB /ENV /LAB /02 / 465 / 24 Date: 01/08/2024

Re: AIR QUALITY REPORT

We wish to inform you that Air Quality Monitoring was carried out in JAMADOBA GROUP in the month of JULY'2024. The results are as given below.

Core zone (as per Ambient Air quality standards for coal mines notified vide notification G.S.R.
742(E) dated-25.09.2000

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO2 24 Hourly Limit-120 µg/m ³	NOx 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	03.07.24	Cloudy	186.7	67.2	15.9	18.4

Buffer zone (as per NAAQS 2009 for Ambient Air quality standards)

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM 10 24 Hourly Limit-100 µg/m ³	PM 2.5 24 Hourly Limit- 60 µg/m ³	SO ₂ 24 Hoarly Limit-80 μg/m ³	NOx 24 Hourly Limit-80 µg/m ³
I	Jamadoba Group Office	23°42'15.3" N/ 86°24'11" E	05.07.24	Clear	86.5	44.3	18.2	21.6
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	04.07.24	Cloudy	65.9	30.2	14.8	16.2
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	08.07.24	Cloudy	68.2	31.0	17.5	20.3
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	09.07.24	Clear	72.4	33.1	16.8	19.5

Note: PM 10 - Less than 10-micron Particulate Matter PM2.5 - Less than 2.5-micron Particulate Matter

> - Microgram μg

This is for your information and necessary action please.

Area Manager (Environment)

Ponahat.

Lab. Assistant (Environment)

Annexure- II

TATA STEEL LIMITED JHARIA DIVISION

Sr.Manager, Jamadoba Colliery Sr.Manager, Digwadih Colliery Sr.Manager, 6 & 7 Pits Colliery Head, Jamadoba Coal Washery CMO, Tata Central Hospital, Jamadoba

Ref: JMB /ENV /LAB /02 / 5-2/ / 24 Date: 02 / 09 / 2024

Re: AIR QUALITY REPORT

We wish to inform you that Air Quality Monitoring was carried out in JAMADOBA GROUP in the month of AUGUST'2024. The results are as given below.

Core zone (as per Ambient Air quality standards for coal mines notified vide notification G.S.	.R.
742(E) dated-25.09.2000	

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO2 24 Hourly Limit-120 µg/m ³	NOx 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	16.08.24	Clear	201.9	70.8	16.8	19.7

Buffer zone (as per NAAQS 2009 for Ambient Air quality standards)

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM 10 *24 Hourly Limit-100 µg/m ³	PM 2.5 24 Hourly Limit- 60 µg/m ³	SO ₂ 24 Hourly Limit-80 µg/m ³	NOx 24 Hourly Limit-80 µg/m ³
1	Jamadoba Group Office	23°42°15.3" N/ 86°24'11" E	12.08.24	Clear	74.2	36.2	16.5	18.3
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	13.08.24	Cloudy	57.1	24.0	15.4	17.8
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	20.08.24	Cloudy	69.4	32.1	12.7	14.1
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	19.08.24	Cloudy	64.2	29.5	14.6	16.7

Note: PM 10 - Less than 10-micron Particulate Matter

PM_{2.5} - Less than 2.5-micron Particulate Matter µg - Microgram

This is for your information and necessary action please.

Emahate.

Lab. Assistant (Environment)

Area Manager (Environment)

Annexure- II

TATA STEEL LIMITED JHARIA DIVISION

Sr.Manager, Jamadoba Colliery Sr.Manager, Digwadih Colliery Sr.Manager, 6 & 7 Pits Colliery Head, Jamadoba Coal Washery CMO, Tata Central Hospital, Jamadoba

Ref: JMB/ENV/LAB/02/58//24 Date: 01/10/2024

Re: AIR QUALITY REPORT

We wish to inform you that Air Quality Monitoring was carried out in JAMADOBA GROUP in the month of SEPTEMBER'2024. The results are as given below.

Core zone (as per Ambient Air quality standards for coal mines notified vide not	ification G.S.R.
742(E) dated-25.09.2000	

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	SPM 24 Hourly Limit-700 µg/m ³	RSPM 24 Hourly Limit-300 µg/m ³	SO ₂ 24 Hourly Limit-120 μg/m ³	NOx 24 Hourly Limit-120 µg/m ³
1	6&7 Pits Kalimandir area	23°43'15" N/ 86°24'12" E	05.09.24	Cloudy	195.6	68.4	15.7	17.2

Buffer zone (as per NAAQS 2009 for Ambient Air quality standards)

S.No	Location	Latitude/ Longitude	Date of Sampling	Weather Condition	PM 10 24 Hourly Limit-100 µg/m ³	PM 2.5 24 Hourly Limit- 60 µg/m ³	SO2 24 Hourly Limit-80 µg/m ³	NOx 24 Hourly Limit-80 µg/m ³
1	Jamadoba Group Office	23°42'15.3" N/ 86°24'11" E	06.09.24	Clear	90.6	52.7	17.4	20.1
2	Digwadih 12 No. Colony	23°41'42" N/ 86°24'45.3" E	03.09.24	Clear	72.6	38.1	18.7	21.0
3	New Village Colony, Jamadoba	23°41'51" N/ 86°23'19" E	04.09.24	Clear	70.4	35.2	16.9	19.5
4	Tata Central Hospital	23°42'36" N/ 86°24'10.4"E	07.09.24	Cloudy	65.4	28.9	14.8	16.2

Note: PM 10 - Less than 10-micron Particulate Matter

PM_{2.5} - Less than 2.5-micron Particulate Matter µg - Microgram

This is for your information and necessary action please.

Emphat.

Lab. Assistant (Environment)

Annexure- II

TATA STEEL LIMITED JHARIA DIVISION

Head, Jamadoba Colliery Head, Jamadoba Coal Washery Sr. Manager, Digwadih Colliery Sr. Manager, 6 & 7 Pits Colliery

Ref : JMB/ ENV/ LAB/ 05/ 2 28 /24 Dated: 0 2/ 0 \$7 2024

Re: Ambient Noise Level Report

We wish to inform you that Ambient Noise Level Monitoring was carried out in JAMADOBA GROUP in the month of APRIL'2024. The results are as given below:

S.No	Marianian Finitar	Date	Day (0	6.00 - 22.	00 Hrs.)	Night (22.00-06.00 Hrs)		
	Monitoring Station		CPCB Standard- 55			CPCB Standard- 45		
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Digwadih 12 No. Colony	25.04.24	43.7	45.5	44.6	35.4	37.7	36.6
2	New Village Colony, Jamadoba	25.04.24	41.3	43.6	42.5	33.6	35.4	34.5
3	6&7 Pits Kalimandir Colony	25.04.24	43.2	45.4	44.3	35.5	37.8	36.7
4	Digwadih 10 No. Colony	25.04.24	44.5	46.7	45.6	36.2	38.5	37.4

S.No	Monitoring Station	D	Day (0	5.00 - 22.	00 Hrs.)	Night (22.00-06.00 Hrs) CPCB Standard- 70		
S.No	Monitoring Station	Date -	CPCI	3 Standa	rd- 75			
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	25.04.24	57.4	60.7	59.1	49.3	51.5	50.4
2	2 Pit Top Kalimandir, Jamadoba	25.04.24	53.1	56.4	54.8	45.6	47.9	46.8
3	Weigh Bridge, Digwadih	25.04.24	48.6	51.3	50.0	40.4	42.7	41.6
4	Canteen Complex, Digwadih	25.04.24	49.2	50.6	49.9	41.7	43.5	42.6
5	Head Office Complex, Digwadih	25.04.24	48.6	50.4	49.5	40.2	42.6	41.4
6	Check Post Security Gate, 6&7 Pits	25.04.24	49.3	51.7	50.5	41.1	43.4	42.3
7	Canteen Complex, 6&7 Pits	25.04.24	48.5	49.2	48.9	40.3	41.5	40.9
8	Fan house- Nitrogen Plant, 6&7 Pits	25.04.24	72.3	73.5	72.9	64.2	65.4	64.8
9	Joota Gate, JCPP	25.04.24	67.7	70.9	69.3	59.5	62.2	60.9
10	Main Gate Stores, JCPP	25.04.24	54.2	57.5	55.9	46.5	48.7	47.6
11	Railway Siding Yard, JCPP	25.04.24	50.4	52.7	51.6	42.3	44.5	43.4

Analysis: All the values are within permissible limit.

This is for your information please.

Behro

Lab. Assistant (Environment)

Sr. Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head, Jamadoba Colliery Head, Jamadoba Coal Washery Sr. Manager, Digwadih Colliery Sr. Manager, 6 & 7 Pits Colliery

Ref : JMB/ ENV/ LAB/ 05/ 3 07 /24 Dated: 03 /26/ 2024

Re: Ambient Noise Level Report

We wish to inform you that Ambient Noise Level Monitoring was carried out in JAMADOBA GROUP in the month of MAY'2024. The results are as given below:

S.No	Manda - Conting	Date	Day (0	6.00 - 22.	00 Hrs.)	Night (22.00-06.00 Hrs)		
	Monitoring Station		CPCB Standard- 55			CPCB Standard- 45		
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Digwadih 12 No. Colony	09.05.24	44.2	46.5	45.4	36.4	38.7	37.6
2	New Village Colony, Jamadoba	09.05.24	42.7	44.5	43.6	34.5	36.8	35.7
3	6&7 Pits Kalimandir Colony	09.05.24	44.5	46.7	45.6	36.7	38.5	37.6
4	Digwadih 10 No. Colony	09.05.24	42.3	44.8	43.6	34.2	36.5	35.4

	Martin to Oct	Dete	Day (0	6.00 - 22.	00 Hrs.)	Night ((22.00-06.	00 Hrs)
S.No	Monitoring Station	Date	CPCI	B Standa	rd- 75	CPCI	22.00-06.0 B Standar Max. 51.1 46.7 42.5 42.9 40.6 42.7 41.5 65.5 63.4	rd- 70
l	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	09.05.24	56.6	59.3	58.0	48.4	51.1	49.8
2	2 Pit Top Kalimandir, Jamadoba	09.05.24	52.3	54.5	53.4	44.5	46.7	45.6
3	Weigh Bridge, Digwadih	09.05.24	48.2	50.5	49.4	40.3	42.5	41.4
4	Canteen Complex, Digwadih	09.05.24	48.5	50.7	49.6	40.7	42.9	41.8
5	Head Office Complex, Digwadih	09.05.24	46.1	48.3	47.2	38.3	40.6	39.5
6	Check Post Security Gate, 6&7 Pits	09.05.24	48.3	51.2	49.8	40.5	42.7	41.6
7	Canteen Complex, 6&7 Pits	09.05.24	47.2	48.6	47.9	39.4	41.5	40.5
8	Fan house- Nitrogen Plant, 6&7 Pits	09.05.24	72.2	73.6	72.9	64.4	65.5	65.0
9	Joota Gate, JCPP	09.05.24	68.4	71.7	70.1	60.2	63.4	61.8
10	Main Gate Stores, JCPP	09.05.24	53.5	56.8	55.2	45.7	48.5	47.1
11	Railway Siding Yard, JCPP	09.05.24	51.2	53.4	52.3	43.5	45.8	44.7

Analysis: All the values are within permissible limit.

This is for your information please.

Bohto

Lab. Assistant (Environment)

Copy to: Specialist (OH). TCH

Area Manager (Environment)

ENVIRONMENT CELL LABORATORY, JAMADOBA AUTHORIZED VIDE LETTER NO. B – 3922 DATED- 30.08.2012 BY JHARKHAND STATE POLLUTION CONTROL BOARD, RANCHI.

TATA STEEL LIMITED JHARIA DIVISION

Head, Jamadoba Colliery Head, Jamadoba Coal Washery Sr. Manager, Digwadih Colliery Sr. Manager, 6 & 7 Pits Colliery

Ref : JMB/ ENV/ LAB/ 05/ 372/24 Dated: 01 / 07/ 2024

Re: Ambient Noise Level Report

We wish to inform you that Ambient Noise Level Monitoring was carried out in JAMADOBA GROUP in the month of JUNE'2024. The results are as given below:

0.11	Manitoring Station	Data	Day (00	5.00 - 22.	00 Hrs.)	Night (22.00-06.00 Hrs)		
S.No	Monitoring Station	Date	CPCI	3 Standa	rd- 55	CPCI	B Standa	rd- 45
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Digwadih 12 No. Colony	28.06.24	42.7	44.5	43.6	34.5	36.3	35.4
2	New Village Colony, Jamadoba	28.06.24	41.5	43.8	42.7	33.2	35.4	34.3
3	6&7 Pits Kalimandir Colony	28.06.24	43.2	45.5	44.4	35.4	37.6	36.5
4	Digwadih 10 No. Colony	28.06.24	42.6	44.9	43.8	34.7	36.5	35.6

	Martin Inc. Contan	5	Day (0	6.00 - 22.	00 Hrs.)	Night (22.00-06.	00 Hrs)
S.No	Monitoring Station	Date	CPCI	B Standa	rd- 75	CPCI	22.00-06.0 3 Standa Max. 49.5 47.6 44.5 42.7 39.9 44.7 41.3 65.5 61.8 47.5 45.4	rd- 70
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	28.06.24	54.4	57.7	56.1	46.1	49.5	47.8
2	2 Pit Top Kalimandir, Jamadoba	28.06.24	52.7	55.5	54.1	44.3	47.6	46.0
3	Weigh Bridge, Digwadih	28.06.24	49.5	52.8	51.2	41.7	44.5	43.1
4	Canteen Complex, Digwadih	28.06.24	48.8	50.6	49.7	40.4	42.7	41.6
5	Head Office Complex, Digwadih	28.06.24	45.3	47.5	46.4	37.6	39.9	38.8
6	Check Post Security Gate, 6&7 Pits	28.06.24	49.5	52.7	51.1	41.2	44.7	43.0
7	Canteen Complex, 6&7 Pits	28.06.24	47.6	49.4	48.5	39.5	41.3	40.4
8	Fan house- Nitrogen Plant, 6&7 Pits	28.06.24	72.3	73.7	73.0	64.3	65.5	64.9
9	Joota Gate, JCPP	28.06.24	66.7	69.5	68.1	58.6	61.8	60.2
10	Main Gate Stores, JCPP	28.06.24	52.4	55.6	54.0	44.2	47.5	45.9
11	Railway Siding Yard, JCPP	28.06.24	51.5	53.8	52.7	43.7	45.4	44.6

Analysis: All the values are within permissible limit.

This is for your information please.

and

Lab. Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head, Jamadoba Colliery Head, Jamadoba Coal Washery Sr. Manager, Digwadih Colliery Sr. Manager, 6 & 7 Pits Colliery

Ref : JMB/ ENV/ LAB/ 05/ 444/24 Dated: 01/08/2024

Re: Ambient Noise Level Report

We wish to inform you that Ambient Noise Level Monitoring was carried out in JAMADOBA GROUP in the month of JULY'2024. The results are as given below:

C. 31.	Marilania Station	Data	Day (0	6.00 - 22.0	00 Hrs.)	Night	Night (22.00-06.0	
S.No	Monitoring Station	Date	CPCI	3 Standa	rd- 55	CPC	B Standa	rd- 45
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	Digwadih 12 No. Colony	26.07.24	42.3	44.7	43.5	34.5	36.7	35.6
2	New Village Colony, Jamadoba	26.07.24	43.1	45.4	44.3	35.3	37.7	36.5
3	6&7 Pits Kalimandir Colony	26.07.24	42.5	44.8	43.7	34.7	36.5	35.6
4	Digwadih 10 No. Colony	26.07.24	41.8	43.3	42.6	33.4	35.6	34.5

	March Const	Du	Day (0	6.00 - 22.	00 Hrs.)	Night	(22.00-06.	00 Hrs)
S.No	Monitoring Station	Date	CPCI	B Standa	rd- 75	CPC	22.00-06.0 3 Standar Max. 46.5 47.4 42.9 40.7 40.3 45.1 40.5 65.6 59.5 49.9 47.3	rd- 70
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	26.07.24	52.8	55.6	54.2	44.6	46.5	45.6
2	2 Pit Top Kalimandir, Jamadoba	26.07.24	53.5	56.3	54.9	45.2	47.4	46.3
3	Weigh Bridge, Digwadih	26.07.24	48.4	50.7	49.6	40.6	42.9	41.8
4	Canteen Complex, Digwadih	26.07.24	46.6	48.4	47.5	38.4	40.7	39.6
5	Head Office Complex, Digwadih	26.07.24	46.3	49.7	48.0	38.1	40.3	39.2
6	Check Post Security Gate, 6&7 Pits	26.07.24	48.7	51.5	50.1	40.5	45.1	42.8
7	Canteen Complex, 6&7 Pits	26.07.24	46.5	48.6	47.6	38.3	40.5	39.4
8	Fan house- Nitrogen Plant, 6&7 Pits	26.07.24	72.2	73.5	72.9	64.4	65.6	65.0
9	Joota Gate, JCPP	26.07.24	64.7	67.3	66.0	56.2	59.5	57.9
10	Main Gate Stores, JCPP	26.07.24	55.1	58.4	56.8	47.4	49.9	48.7
11	Railway Siding Yard, JCPP	26.07.24	52.4	55.7	54.1	44.1	47.3	45.7

Analysis: All the values are within permissible limit.

This is for your information please.

BLID

Lab. Assistant (Environment)

lanager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head, Jamadoba Colliery Head, Jamadoba Coal Washery Sr. Manager, Digwadih Colliery Sr. Manager, 6 & 7 Pits Colliery

Ref : JMB/ ENV/ LAB/ 05/ 507/24 Dated: 02/09/2024

Re: Ambient Noise Level Report

We wish to inform you that Ambient Noise Level Monitoring was carried out in JAMADOBA GROUP in the month of AUGUST'2024. The results are as given below:

C Me	Manitarina Station	Dete	Day (0	6.00 - 22.	00 Hrs.)	Night (22.00-06.00 Hrs			
S.No	Monitoring Station	Date	CPCI	B Standa	rd- 55	CPCI	B Standa Max. 36.5 37.8 37.6	ard- 45	
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.	
1	Digwadih 12 No. Colony	27.08.24	42.7	44.9	43.8	34.3	36.5	35.4	
2	New Village Colony, Jamadoba	27.08.24	43.5	45.6	44.6	35.6	37.8	36.7	
3	6&7 Pits Kalimandir Colony	27.08.24	43.2	45.5	44.4	35.4	37.6	36.5	
4	Digwadih 10 No. Colony	27.08.24	42.4	44.7	43.6	34.5	36.8	35.7	

	Martin In Cost	Dut	Day (0	5.00 - 22.	00 Hrs.)	Night	(22.00-06.	00 Hrs)
S.No	Monitoring Station	Date	CPCI	3 Standa	rd- 75	CPCI	22.00-06.0 3 Standar Max. 47.8 48.4 42.9 40.7 42.6 44.7 40.4 65.8 56.5 48.7 45.5	rd- 70
	Industrial Area (Core Zone)	1.2	Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	27.08.24	52.4	55.7	54.1	44.6	47.8	46.2
2	2 Pit Top Kalimandir, Jamadoba	27.08.24	53.1	56.5	54.8	45.2	48.4	46.8
3	Weigh Bridge, Digwadih	27.08.24	49.3	51.7	50.5	40.5	42.9	41.7
4	Canteen Complex, Digwadih	27.08.24	46.7	48.9	47.8	38.4	40.7	39.6
5	Head Office Complex, Digwadih	27.08.24	47.5	50.3	48.9	39.7	42.6	41.2
6	Check Post Security Gate, 6&7 Pits	27.08.24	49.4	52.7	51.1	41.5	44.7	43.1
7	Canteen Complex, 6&7 Pits	27.08.24	46.3	48.5	47.4	38.1	40.4	39.3
8	Fan house- Nitrogen Plant, 6&7 Pits	27.08.24	72.3	73.6	73.0	64.4	65.8	65.1
9	Joota Gate, JCPP	27.08.24	61.5	64.2	62.9	53.2	56.5	54.9
10	Main Gate Stores, JCPP	27.08.24	53.3	56.6	55.0	45.6	48.7	47.2
11	Railway Siding Yard, JCPP	27.08.24	50.6	53.8	52.2	42.3	45.5	43.9

Analysis: All the values are within permissible limit.

This is for your information please.

BAT

Lab. Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head, Jamadoba Colliery Head, Jamadoba Coal Washery Sr. Manager, Digwadih Colliery Sr. Manager, 6 & 7 Pits Colliery

Ref : JMB/ ENV/ LAB/ 05/ 589/24 Dated: 01//0/2024

Re: Ambient Noise Level Report

We wish to inform you that Ambient Noise Level Monitoring was carried out in JAMADOBA GROUP in the month of SEPTEMBER'2024. The results are as given below:

ONIO	Monitoring Station	Date	Day (0	5.00 - 22.	00 Hrs.)	Night (22.00-06.00 Hrs			
S.No	Monitoring Station	Date	CPCI	3 Standa	rd- 55	CPC	B Stands Max. 36.5 37.7 37.9	ard- 45	
	Residential Area (Buffer Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.	
1	Digwadih 12 No. Colony	22.09.24	42.4	44.7	43.6	34.2	36.5	35.4	
2	New Village Colony, Jamadoba	22.09.24	43.3	45.5	44.4	35.4	37.7	36.6	
3	6&7 Pits Kalimandir Colony	22.09.24	43.7	45.9	44.8	35.6	37.9	36.8	
4	Digwadih 10 No. Colony	22.09.24	42.8	44.6	43.7	34.5	36.8	35.7	

S.No	Manitanian Station	Dete	Day (0	6.00 - 22.	00 Hrs.)	Night	(22.00-06.	00 Hrs)
5.NO	Monitoring Station	Date	CPCI	B Standa	rd- 75	CPC	22.00-06.0 3 Standar Max. 47.8 48.4 43.6 40.5 42.7 44.8 40.6 65.7 55.7 47.3 45.7	rd- 70
	Industrial Area (Core Zone)		Min.	Max.	Avg.	Min.	Max.	Avg.
1	2 Pit Main Gate Security Post	22.09.24	52.7	55.9	54.3	44.5	47.8	46.2
2	2 Pit Top Kalimandir, Jamadoba	22.09.24	53.3	56.7	55.0	45.1	48.4	46.8
3	Weigh Bridge, Digwadih	22.09.24	49.5	51.9	50.7	41.4	43.6	42.5
4	Canteen Complex, Digwadih	22.09.24	46.6	48.7	47.7	38.3	40.5	39.4
5	Head Office Complex, Digwadih	22.09.24	47.3	50.6	49.0	39.5	42.7	41.1
6	Check Post Security Gate, 6&7 Pits	22.09.24	49.7	52.9	51.3	41.5	44.8	43.2
7	Canteen Complex, 6&7 Pits	22.09.24	46.1	48.4	47.3	38.4	40.6	39.5
8	Fan house- Nitrogen Plant, 6&7 Pits	22.09.24	72.4	73.7	73.1	64.3	65.7	65.0
9	Joota Gate, JCPP	22.09.24	60.1	63.4	61.8	52.6	55.7	54.2
10	Main Gate Stores, JCPP	22.09.24	52.7	55.6	54.2	44.4	47.3	45.9
11	Railway Siding Yard, JCPP	22.09.24	50.3	53.5	51.9	42.5	45.7	44.1

Analysis: All the values are within permissible limit.

This is for your information please.

W Och

Lab. Assistant (Environment)

Copy to: Specialist (OH). TCH

TATA STEEL LIMITED JHARIA DIVISION

Sr. Manager Jamadoba Colliery Head, Jamadoba Coal Preparation Plant C.M.O, TCH, Jamadoba.

Ref. No. - JMB / ENV / LAB / 03 / 253 / 2024 Dated - 08 / 05 / 2024

Sub: ETP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of APRIL'2024. The results are as given below:

S. No	Location		Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
S. ND	(Final Discharge Point)	Date	Time	< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	ETP, TCH- Inlet	25.04.24	12:50 PM	26	8.2	132	978	26.5	260	1.6
2	ETP, TCH- Outlet	25.04.24	12:55 PM	25	7.7	26	732	5.4	72	0.5
3	ETP, Garage- Inlet	25.04.24	01:50 PM	27	8.0	158	910	28.9	236	3.6
4	ETP, Garage- Outlet	25.04.24	01:55 PM	26	7.8	23	742	7.3	84	1.4
5	Final Settling Pond JCPP	25.04.24	10:05 AM				Dry Pond			

All the parameters are within the limit, and you are requested to maintain the same. This is for your information and necessary action please.

Emphato.

Lab.Assistant (Environment)

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Annexure- II

TATA STEEL LIMITED JHARIA DIVISION

Sr. Manager, Jamadoba Colliery Sr. Manager, Digwadih Colliery Sr. Manager, 6&7 Pits Colliery

Ref. No. - JMB / ENV / LAB / 03 / -257 / 2024 Dated - 08/05 / 2024

Sub: MINE WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of APRIL'2024. The results are as given below:

S. No	Location (Final Discharge Point)	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
- 3. 190	(Mine's Water)	Date	Time	< 40°C	5,5 - 9,0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	2 Pit Jamadoba Colliery	25.04.24	09:35 AM	31	7.6	36	740	2.5	64	1.4
2	3 Pit Jamadoba Colliery	25.04.24	09:50 AM			N	o Dischar	ge		
3	2 Incline Jamadoba Colliery	25.04,24	10:25 AM			N	o Dischar	ge		
4	6 & 7 Pits Colliery	25.04.24	12:35 PM	32	7.5	14	784	2.1	74	0
5	Digwadih Colliery	25.04.24	11:20 AM	32	7.6	23	1024	2.6	54	0

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.

Emohoto . Lab.Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Sr. Manager Jamadoba Colliery Head, Jamadoba Coal Preparation Plant Sr. Manager Digwadih Colliery

Ref. No. - JMB / ENV / LAB / 03 / 252 / 2024 Dated - 08/05 / 2024

Sub: STP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of APRIL'2024. The results are as given below:

	Location	Sampling	Sampling	Тетр	pH	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point)	Date	Time	< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/1	250 mg/l	10 mg/l
1	STP, Jmb. Canteen- Inlet	25.04.24	01:30 PM	27	7.8	106	982	33.1	326	2.8
2	STP, Jmb. Canteen- Outlet	25.04.24	01:35 PM	26	7.4	24	722	6.2	74	0.7
3	STP, JCPP Canteen- Inlet	25.04.24	01:10 PM	27	7.9	122	879	32.9	284	2.3
4	STP, JCPP Canteen- Outlet	25.04.24	01:15 PM	26	7.2	34	687	6.9	54	0.4
5	STP, Railway Colony- Inlet	25.04.24	10:45 AM	27	8.1	144	1036	36.2	310	3.4
6	STP, Railway Colony-Outlet	25.04.24	10:50 AM	26	7.5	28	725	6.4	94	0.8
7	STP, Digwadih 12 No. Officer's colony-Inlet	25.04.24	11:40 AM		8.2	136	1024	30.5	320	2.8
8	STP, Digwadih 12 No. Officer's colony- Outlet	25.04.24	11:45 AM	25	7.4	37	684	5.7	86	1.2
9	STP,Digwadih 12 No. Supervisor flat – Inlet	25.04.24	12:05 PM	27	7.8	137	974	34.8	326	3.1
10	STP,Digwadih 12 No. Supervisor flat -Outlet	25.04.24	12:10 PM	26	7.6	18	736	5.2	64	0.9

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.

Emahato.

Lab.Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Sr. Manager Jamadoba Colliery Head, Jamadoba Coal Preparation Plant C.M.O, TCH, Jamadoba.

Ref. No. - JMB / ENV / LAB / 03 / 328 / 2024 Dated - 03 / 06 / 2024

Sub: ETP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of MAY'2024. The results are as given below:

	Location	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point)	Date	Time	< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/1	250 mg/l	10 mg/l
1	ETP, TCH- Inlet	09.05.24	11:00 AM	27	8.5	98	798	23.5	210	1.2
2	ETP, TCH- Outlet	09.05.24	11:05 AM	26	8.3	46	716	6.9	66	0.3
3	ETP, Garage- Inlet	09.05.24	01:30 PM	26	8.4	106	890	33.1	310	4.2
4	ETP, Garage- Outlet	09.05.24	01:35 PM	25	8.0	49	814	7.8	112	1.8
5	Final Settling Pond JCPP	09.05.24	12:05 PM				Dry Pond			

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All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.

Area Manager (Environment)

Conshit .

Lab.Assistant (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Sr. Manager, Jamadoba Colliery Sr. Manager, Digwadih Colliery Sr. Manager, 6&7 Pits Colliery

Ref. No. - JMB / ENV / LAB / 03 / 3-26 / 2024 Dated - 03 / 06 / 2024

Sub: MINE WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of MAY'2024. The results are as given below:

	Location	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point) (Mine's Water)	Date	Time	< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	2 Pit Jamadoba Colliery	09.05.24	12:55 PM			N	o Discharg	e		
2	3 Pit Jamadoba Colliery	09.05.24	12:20 PM	31	7.8	36	862	2.1	66	0
3	2 Incline Jamadoba Colliery	09.05.24	11:50 AM			N	o Discharg	e		
4	6 & 7 Pits Colliery	09.05.24	10:45 AM	32	7.2	21	927	2.5	80	0.4
5	Digwadih Colliery	09.05.24	10:20 AM	30	8.0	17	958	2.4	58	0

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All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.

Emahato.

Lab.Assistant (Environment)

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TATA STEEL LIMITED JHARIA DIVISION

Sr. Manager Jamadoba Colliery Head, Jamadoba Coal Preparation Plant Sr. Manager Digwadih Colliery

Ref. No. - JMB / ENV / LAB / 03 / 327 / 2024 Dated - 03 / 06 / 2024

Sub: STP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of MAY'2024. The results are as given below:

S. No	Location	Sampling	Sampling	Temp	pН	TSS	TDS	BOD	COD	Oil & Grease
3. 010	(Final Discharge Point)	Date	Time	< 40 ⁶ C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/1	250 mg/l	10 mg/l
1	STP, Jmb. Canteen- Inlet	09.05.24	01:10 PM	26	7.5	84	893	31.9	316	2.5
2	STP, Jmb. Canteen- Outlet	09.05.24	01:15 PM	25	7.3	22	819	7.3	82	0.8
3	STP, JCPP Canteen- Inlet	09.05.24	12:35 PM	26	8.2	118	1058	33.4	290	2.7
4	STP, JCPP Canteen- Outlet	09.05.24	12:40 PM	25	7.8	19	922	5.2	72	0.9
5	STP, Railway Colony- Inlet	09.05.24	11:25 AM	27	8.3	129	1122	35.7	320	3.6
6	STP, Railway Colony-Outlet	09.05.24	11:30 AM	26	8.0	25	1048	7.8	73	1.0
7	STP, Digwadih 12 No. Officer's colony-Inlet	09.05.24	09:40 AM	a 27	8.4	158	987	34.9	317	3.2
8	STP, Digwadih 12 No. Officer's colony- Outlet	09.05.24	09:45 AM	26	7.9	24	747	6.8	64	1.6
9	STP,Digwadih 12 No. Supervisor flat – Inlet	09.05.24	10:00 AM	26	8,1	148	1428	35.2	348	3.9
10	STP,Digwadih 12 No. Supervisor flat -Outlet	09.05.24	10:05 AM	25	7.8	46	1216	8.4	110	2.1

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.

Ponchate

Lab.Assistant (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Well Water Quality Report of Jamadoba Group for the month of MAY'2024

S.No	Date	Location	Time	Depth in meter	рН	Electrical Conductivity µS/m
1	10.05.24	Purnadih (Jorapokhar)	11:45 AM	6.38	7.3	1226
2	10.05.24	Bhowra 13 No	12:20 PM	3.85	7.1	1017
3	10.05.24	Mohalbani Basti	02:30 PM	8.24	7.2	1085
4	10.05.24	Digwadih 10 No F & J	01:10 PM	5.10	7.3	1560
5	10.05.24	Kalimela Shivmandir	11:00 AM	11.00	7.2	846
6	10.05.24	Kalimela Kalimandir	11:15 AM	11.15	7.0	1395
7	10.05.24	Lower Dungari	10:35 AM	10.35	7.1	840
8	10.05.24	Upper Dungari	10:10 AM	10.10	7.5	878
9	10.05.24	Pattia Basti	09:30 AM	9.30	7.3	987
10	10.05.24	Kenduadih Basti	09:50 AM	9.50	7.4	1028
11	10.05.24	Jorapokhar Kushtand	11:25 AM	11.25	7.6	1583
12	10.05.24	6&7 Pits (Ayodhya Nagri)	02:00 PM	2.00	7.2	984
13	10.05.24	Jorapokhar Basti Chhattand	01:30 PM	2.30	7.3	1412
14	10.05.24	Jorapokhar Babu Basa	12:05 PM	12.00	7.1	1240

JAMADOBA GROUP

Emphato.

Lab.Assistant (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Sr. Manager Jamadoba Colliery Head, Jamadoba Coal Preparation Plant C.M.O, TCH, Jamadoba.

Ref. No. - JMB / ENV / LAB / 03 / 3 93 / 2024 Dated - 03 / 07 / 2024

Sub: ETP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of JUNE'2024. The results are as given below:

	Location	Sampling	Sampling	Temp	рН	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point)	Date	Time	< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	ETP, TCH- Inlet	28.06.24	12:25 PM	27	8.1	126	983	26.5	246	1.5
2	ETP, TCH- Outlet	28.06.24	12:30 PM	26	7.8	42	859	4.6	68	0.6
3	ETP, Garage- Inlet	28.06.24	01:25 PM	26	8.3	164	996	30.7	324	4.6
4	ETP, Garage- Outlet	28.06.24	01:30 PM	25	7.6	38	768	7.4	102	1.6
5	Final Settling Pond JCPP	28.06.24	10:15 AM				Dry Pond			

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.

Emphate.

Lab.Assistant (Environment)

Area Manager (Environment)

Annexure- II

TATA STEEL LIMITED JHARIA DIVISION

Sr. Manager, Jamadoba Colliery Sr. Manager, Digwadih Colliery Sr. Manager, 6&7 Pits Colliery

Ref. No. - JMB / ENV / LAB / 03 / 39/ / 2024 Dated - 03 / 67 / 2024

Sub: MINE WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of JUNE'2024. The results are as given below:

-	Location	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point) (Mine's Water)	Date	Time	< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	2 Pit Jamadoba Colliery	28.06.24	09:30 AM			N	o Discharg	e		
2	3 Pit Jamadoba Colliery	28.06.24	09:45 AM	31	7.6	29	784	2.3	72	0
3	2 Incline Jamadoba Colliery	28.06.24	10:05 AM			N	o Discharg	e		à
4	6 & 7 Pits Colliery	28.06.24	12:10 PM	30	7.7	17	932	2.9	54	0
5	Digwadih Colliery	28.06.24	11:45 AM			N	o Discharg	je		

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All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.

Ponchat Lab.Assistant (Environment)

Area Manager (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Sr. Manager Jamadoba Colliery Head, Jamadoba Coal Preparation Plant Sr. Manager Digwadih Colliery

Ref. No. - JMB / ENV / LAB / 03 / 3 92 / 2024 Dated - 03/ 07-/ 2024

Sub: STP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of JUNE'2024. The results are as given below:

Location	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
(Final Discharge Point)	Date	Time	< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
STP, Jmb. Canteen- Inlet	28.06.24	01:10 PM	27	8.0	123	1028	34.8	320	2.9
STP, Jmb. Canteen- Outlet	28.06.24	01:15 PM	26	7.5	41	836	5.9	68	0.3
STP, JCPP Canteen- Inlet	28.06.24	12:50 PM	27	8.3	157	1027	32.1	260	3.1
STP, JCPP Canteen- Outlet	28.06.24	12:55 PM	26	8.0	35	832	4.8	84	0.5
STP, Railway Colony- Inlet	28.06.24	10:30 AM	27	8.4	164	1137	35.8	336	2.9
STP, Railway Colony-Outlet	28.06.24	10:35 AM	26	8.1	54	987	6.2	76	1.3
STP, Digwadih 12 No. Officer's colony-Inlet	28.06.24	11:05 AM	<i>a</i> 26	8.3	131	996	33.7	332	3.4
STP, Digwadih 12 No. Officer's colony- Outlet	28.06.24	11:10 AM	25	7,8	46	892	5.2	96	1.8
STP,Digwadih 12 No. Supervisor flat – Inlet	28.06.24	11:25 AM	27	8.2	146	1219	36.8	284	3.4
STP,Digwadih 12 No. Supervisor flat -Outlet	28.06.24	11:30 AM	26	7.9	52	1124	8.9	117	1.5
	(Final Discharge Point) STP, Jmb. Canteen- Inlet STP, Jmb. Canteen- Outlet STP, JCPP Canteen- Inlet STP, JCPP Canteen- Outlet STP, Railway Colony- Inlet STP, Railway Colony-Outlet STP, Digwadih 12 No. Officer's colony-Outlet STP, Digwadih 12 No. Supervisor flat – Inlet STP, Digwadih 12 No.	(Final Discharge Point)DateSTP, Jmb. Canteen- Inlet28.06.24STP, Jmb. Canteen- Outlet28.06.24STP, JCPP Canteen- Inlet28.06.24STP, JCPP Canteen- Outlet28.06.24STP, Railway Colony- Inlet28.06.24STP, Railway Colony- Inlet28.06.24STP, Digwadih 12 No. Officer's colony-Inlet28.06.24STP, Digwadih 12 No. Officer's colony-Outlet28.06.24STP, Digwadih 12 No. Supervisor flat – Inlet28.06.24	(Final Discharge Point)DateTimeSTP, Jmb. Canteen- Inlet28.06.2401:10 PMSTP, Jmb. Canteen- Outlet28.06.2401:15 PMSTP, JCPP Canteen- Inlet28.06.2412:50 PMSTP, JCPP Canteen- Outlet28.06.2412:55 PMSTP, Railway Colony- Inlet28.06.2410:30 AMSTP, Railway Colony- Inlet28.06.2410:35 AMSTP, Digwadih 12 No.28.06.2411:05 AMSTP, Digwadih 12 No.28.06.2411:10 AMSTP, Digwadih 12 No.28.06.2411:25 AMSTP, Digwadih 12 No.28.06.2411:25 AMSTP,Digwadih 12 No.28.06.2411:25 AMSTP,Digwadih 12 No.28.06.2411:25 AM	Location (Final Discharge Point)Sampling DateSampling TimeSampling TimeSTP, Jmb. Canteen- Inlet28.06.2401:10 PM27STP, Jmb. Canteen- Outlet28.06.2401:15 PM26STP, JCPP Canteen- Inlet28.06.2412:50 PM27STP, JCPP Canteen- Outlet28.06.2412:55 PM26STP, JCPP Canteen- Outlet28.06.2410:30 AM27STP, Railway Colony- Inlet28.06.2410:35 AM26STP, Digwadih 12 No. Officer's colony-Outlet28.06.2411:05 AM26STP, Digwadih 12 No. Supervisor flat – Inlet28.06.2411:25 AM27STP, Digwadih 12 No. STP, Digwadih 12 No.28.06.2411:25 AM27STP, Digwadih 12 No. Supervisor flat – Inlet28.06.2411:30 AM27	Location (Final Discharge Point) Sampling Date Sampling Time Sampling (40°C Solution STP, Jmb. Canteen- Inlet 28.06.24 01:10 PM 27 8.0 STP, Jmb. Canteen- Outlet 28.06.24 01:15 PM 26 7.5 STP, JCPP Canteen- Inlet 28.06.24 12:50 PM 27 8.3 STP, JCPP Canteen- Inlet 28.06.24 12:55 PM 26 8.0 STP, JCPP Canteen- Outlet 28.06.24 10:30 AM 27 8.4 STP, Railway Colony- Inlet 28.06.24 10:35 AM 26 8.1 STP, Digwadih 12 No. Officer's colony-Outlet 28.06.24 11:05 AM 26 8.3 STP, Digwadih 12 No. Officer's colony-Outlet 28.06.24 11:10 AM 25 7.8 STP, Digwadih 12 No. Supervisor flat – Inlet 28.06.24 11:25 AM 27 8.2 STP, Digwadih 12 No. 28.06.24 11:25 AM 27 8.2	Location (Final Discharge Point) Sampling Date Sampling Time Sampling $40^{\circ}C$ N N STP, Jmb. Canteen- Inlet 28.06.24 01:10 PM 27 8.0 123 STP, Jmb. Canteen- Outlet 28.06.24 01:15 PM 26 7.5 41 STP, Jmb. Canteen- Outlet 28.06.24 12:50 PM 27 8.3 157 STP, JCPP Canteen- Inlet 28.06.24 12:50 PM 26 8.0 35 STP, JCPP Canteen- Outlet 28.06.24 12:55 PM 26 8.0 35 STP, Railway Colony- Inlet 28.06.24 10:30 AM 27 8.4 164 STP, Digwadih 12 No. 28.06.24 10:35 AM 26 8.1 54 STP, Digwadih 12 No. 28.06.24 11:05 AM 26 8.3 131 STP, Digwadih 12 No. 28.06.24 11:10 AM 25 7.8 46 STP, Digwadih 12 No. 28.06.24 11:25 AM 27 8.2 146 STP,Digwadih 12 No. 28.06.24 11:30 AM	Location (Final Discharge Point) Sampling Date Sampling Time No. No. 100 mg/l 2100 mg/l STP, Jmb. Canteen- Inlet 28.06.24 01:10 PM 27 8.0 123 1028 STP, Jmb. Canteen- Outlet 28.06.24 01:10 PM 26 7.5 41 836 STP, Jmb. Canteen- Outlet 28.06.24 12:50 PM 26 8.3 157 1027 STP, JCPP Canteen- Inlet 28.06.24 12:50 PM 26 8.0 35 832 STP, JCPP Canteen- Outlet 28.06.24 12:55 PM 26 8.0 35 832 STP, Railway Colony- Inlet 28.06.24 10:30 AM 27 8.4 164 1137 STP, Digwadih 12 No. 28.06.24 11:05 AM 26 8.3 131 996 STP, Digwadih 12 No. 28.06.24 11:05 AM 26 8.3 131 996 STP, Digwadih 12 No. 28.06.24 11:10 AM 25 7.8 46 892 STP,Digwadih 12 No. 28.0	Location (Final Discharge Point) Sampling Date Sampling Time Sampling Time Sampling $< 40^{9}C$ Sampling $< 30^{10}$ Sampling mg/l Sampling $< 40^{9}C$ Sampling $< 40^{9}C$ Sampling < 5.5 - 9.0 Sampling mg/l Sampling $< 30^{10}$ STP, Jmb. Canteen- Inlet 28.06.24 01:15 PM 26 7.5 41 836 5.9 STP, JCPP Canteen- Outlet 28.06.24 12:55 PM 26 8.0 35 832 4.8 STP, Railway Colony- Inlet 28.06.24 10:30 AM 27 8.4 164 1137 35.8 STP, Digwadih 12 No. 28.06.24 11:05 AM 26 8.3 131 996 33.7 STP, Digwadih 12 No. 28.06.24 11:10 AM 25 7.8 46 892	Location (Final Discharge Point)Sampling DateSampling TimeSampling TimeSampling TimeSampling TimeSampling $< 40^{9}$ CSampling $< 5.5 - 9.0$ Interpret MarkSampling Mg/lSampling Mg/lSampling Mg/lSampling Mg/lSampling Mg/lSampling Mg/lSampling Mg/lSampling Mg/lSampling Mg/lSampling Sampling Mg/lSampling Sampling Mg/lSampling Mg/lSampling Mg/lSampling Sampling Sampling Mg/lSampling Sampling Sampling Labor SamplingSampling Sampling Labor Labor Labor SamplingSampling Labor <b< td=""></b<>

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.

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Lab.Assistant (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant Sr. Manager Jamadoba Colliery C.M.O, TCH, Jamadoba

Ref. No. - JMB / ENV / LAB / 03 / 455 / 2024 Dated - 0/ / 08 / 2024

Sub: ETP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of JULY'2024. The results are as given below:

	Location	Sampling	Sampling	Тетр	pН	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point)	Date	Time	< 40 ⁰ C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	ETP, TCH- Inlet	26.07.24	12:20 PM	28	8.4	148	836	28.3	256	1.7
2	ETP, TCH- Outlet	26.07.24	12:25 PM	27	8.2	25	707	4.9	76	0.2
3	ETP, Garage- Inlet	26.07.24	01:20 PM	28	8.5	137	816	29.1	316	4.5
4	ETP, Garage- Outlet	26.07.24	01:25 PM	27	8.2	16	774	6.7	97	1.8
5	Final Settling Pond JCPP	26.07.24	10:05 AM				Dry Pond	P ₁		

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All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.

Area Manager (Environment)

Enchate .

Lab.Assistant (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Sr. Manager, Jamadoba Colliery Sr. Manager, Digwadih Colliery Sr. Manager, 6&7 Pits Colliery

Ref. No. - JMB / ENV / LAB / 03 / 453/2024 Dated - 01 / 08 / 2024

Sub: MINE WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of JULY'2024. The results are as given below:

	Location	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point) (Mine's Water)	Date	Time	< 40°C	5,5 - 9,0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	2 Pit Jamadoba Colliery	26.07.24	09:20 AM	30	7.4	29	790	2.9	67	0.8
2	3 Pit Jamadoba Colliery	26.07.24	09:35 AM	30	7.5	28	816	2.6	58	0
3	2 Incline Jamadoba Colliery	26.07.24	09:50 AM	1974		No	Discharge	e		
4	6 & 7 Pits Colliery	26.07.24	12:05 PM	32	7.8	21	926	3.1	68	0
5	Digwadih Colliery	26.07.24	10:50 AM	-		No	Discharg	c		

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.

f Im wh 12.08.44 Area Manager (Environment)

Lab.Assistant (Environment)

Annexure- II

TATA STEEL LIMITED JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant Sr. Manager Jamadoba Colliery Sr. Manager Digwadih Colliery

Ref. No. - JMB / ENV / LAB / 03 / **4 54** / 2024 Dated - **01** / **08** / 2024

Sub: STP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of JULY'2024. The results are as given below:

C . NI-	Location	Sampling	Sampling	Temp	pН	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point)	Date	Time	< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	STP, Jmb, Canteen- Inlet	26.07.24	01:05 PM	28	7.8	117	936	35.1	332	2.4
2	STP, Jmb. Canteen- Outlet	26.07.24	01:10 PM	27	7.2	23	814	5.4	76	0.5
3	STP, JCPP Canteen- Inlet	26.07.24	12:45 PM	27	8.2	154	934	31.7	294	2.8
4	STP, JCPP Canteen- Outlet	26.07.24	12:50 PM	26	7.9	27	846	6.4	54	0.3
5	STP, Railway Colony- Inlet	26.07.24	10:20 AM	28	8.1	179	1145	34.9	342	2.1
6	STP, Railway Colony-Outlet	26.07.24	10:25 AM	27	7.8	22	958	5.8	84	1.5
7	STP, Digwadih 12 No. Officer's colony-Inlet	26.07.24	11:40 AM	27	8.0	191	1025	31.2	310	2.3
8	STP, Digwadih 12 No. Officer's colony- Outlet	26.07.24	11:45 AM	26	7.7	18	986	4.7	68	1.0
9	STP,Digwadih 12 No. Supervisor flat – Inlet	26.07.24	11:20 AM	27	8.3	119	1226	35.3	346	3.5
10	STP,Digwadih 12 No. Supervisor flat -Outlet	26.07.24	11:25 AM	26	7.8	63	919	7.1	99	1.6

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.

Lab.Assistant (Environment)

Annexure- II

TATA STEEL LIMITED JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant Sr. Manager Jamadoba Colliery C.M.O, TCH, Jamadoba

Ref. No. - JMB / ENV / LAB / 03 / 527 / 2024 Dated - 02/09 / 2024

Sub: ETP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of AUGUST'2024. The results are as given below:

	Location	Sampling	Sampling	Temp	pН	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point)	Date	Time	< 40 ⁰ C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	ETP, TCH- Inlet	27.08.24	10:45 AM	28	8.3	129	725	27.4	264	1.6
2	ETP, TCH- Outlet	27.08.24	10:50 AM	27	8.0	38	624	5.1	84	0.4
3	ETP, Garage- Inlet	27.08.24	01:20 PM	27	8.4	152	967	28.1	254	4.1
4	ETP, Garage- Outlet	27.08.24	01:25 PM	26	8,1	28	846	8.4	116	1.2
5	Final Settling Pond JCPP	27.08.24	09;50 AM				Dry Pond			

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All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.

Emahat.

Lab.Assistant (Environment)

Area Manager (Environment)

Annexure- II

TATA STEEL LIMITED JHARIA DIVISION

Sr. Manager, Jamadoba Colliery Sr. Manager, Digwadih Colliery Sr. Manager, 6&7 Pits Colliery

Ref. No. - JMB / ENV / LAB / 03 / 525/2024 Dated - 02/09 / 2024

Sub: MINE WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of AUGUST'2024. The results are as given below:

	Location	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point) (Mine's Water)	Date	Time	< 40 ⁰ C	5.5 - 9.0	100 mg/1	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	2 Pit Jamadoba Colliery	27.08.24	09:20 AM			No	Discharg			
2	3 Pit Jamadoba Colliery	27.08.24	09:35 AM	31	7.7	24	742	2.4	68	0
3	2 Incline Jamadoba Colliery	27.08.24	10:05 AM			No	Discharg	ð	_	
4	6 & 7 Pits Colliery	27.08.24	11:10 AM	30	7.5	32	872	2.7	72	0
5	Digwadih Colliery	27.08.24	12:15 PM			No	Discharg	e		

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.

Emphate.

Lab.Assistant (Environment)

Area Manager (Environment)

Annexure- II

TATA STEEL LIMITED JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant Sr. Manager Jamadoba Colliery Sr. Manager Digwadih Colliery

Ref. No. - JMB / ENV / LAB / 03 / 5-26 / 2024 Dated - 02 / 09 / 2024

Sub: STP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of AUGUST'2024. The results are as given below:

	Location	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
S, No	(Final Discharge Point)	Date	Time	< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	STP, Jmb. Canteen- Inlet	27.08.24	01:05 PM	27	7.6	110	879	32.9	290	2.8
2	STP, Jmb. Canteen- Outlet	27.08.24	01:10 PM	26	7.3	20	592	7.2	48	0.9
3	STP, JCPP Canteen- Inlet	27.08.24	12:40 PM	27	8.0	137	910	33.7	316	3.6
4	STP, JCPP Canteen- Outlet	27.08.24	12:45 PM	26	7.5	29	676	6.1	76	0.8
5	STP, Railway Colony- Inlet	27.08.24	10:25 AM	28	8.2	158	1039	36.1	315	2.3
6	STP, Railway Colony-Outlet	27.08.24	10:30 AM	26	7.9	34	932	7.5	69	1.0
7	STP, Digwadih 12 No. Officer's colony-Inlet	27.08.24	11:30 AM	27	7.9	117	1064	30.1	260	2.5
8	STP, Digwadih 12 No. Officer's colony- Outlet	27.08.24	11:35 AM	26	7.4	47	954	4.9	46	0.6
9	STP,Digwadih 12 No. Supervisor flat – Inlet	27.08.24	11:50 AM	28	7.8	168	987	34.6	327	2.9
10	STP,Digwadih 12 No. Supervisor flat -Outlet	27.08.24	11:55 AM	27	7.5	30	796	5.7	94	0.7

All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.

Prohate

Lab.Assistant (Environment)

TATA STEEL LIMITED JHARIA DIVISION

Well Water Quality Report of Jamadoba Group for the month of AUGUST'2024

S.No	Date	Location	Time	Depth in meter	рН	Electrical Conductivity µS/m
1	27.08.24	Purnadih (Jorapokhar)	04:10 PM	3.92	7.2	1232
2	27.08.24	Bhowra 13 No	03:45 PM	1.04	7.0	1022
3	27.08.24	Mohalbani Basti	12:30 PM	1.16	7.4	1036
4	27.08.24	Digwadih 10 No F & J	02:35 PM	1.37	7.2	1816
5	27.08.24	Kalimela Shivmandir	06:15 PM	0.84	7.0	898
6	27.08.24	Kalimela Kalimandir	06:00 PM	2.04	7.2	1350
7	27.08.24	Lower Dungari	05:45 PM	1.82	7.5	610
8	27.08.24	Upper Dungari	05:25 PM	0.95	7.3	746
9	27.08.24	Pattia Basti	05:10 PM	2.98	7.2	872
10	27.08.24	Kenduadih Basti 🏼 🍐	04:50 PM	0.93	7.0	946
11	27.08.24	Jorapokhar Kushtand	03:20 PM	2.16	7.3	1530
12	27.08.24	6&7 Pits (Ayodhya Nagri)	02:15 PM	1.45	7.4	1161
13	27.08.24	Jorapokhar Basti Chhattand	02:55 PM	0.59	7.2	1397
14	27.08.24	Jorapokhar Babu Basa	04:25 PM	1.02	7.3	1020

JAMADOBA GROUP

Prahato Lab.Assistant (Environment)

Rulet

Area Manager (Environment)

ENVIRONMENT CELL LABORATORY, JAMADOBA AUTHORIZED VIDE LETTER NO. B - 3922 DATED- 30.08.2012

BY JHARKHAND STATE POLLUTION CONTROL BOARD, RANCHI.

Annexure- II

TATA STEEL LIMITED JHARIA DIVISION

Head, Jamadoba Coal Preparation Plant Area Manager Jamadoba Colliery C.M.O, TCH, Jamadoba

Ref. No. - JMB / ENV / LAB / 03 / 577 / 2024 Dated - 01 / 10 / 2024

Sub: ETP WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of SEPTEMBER'2024. The results are as given below:

Location	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
(Final Discharge Point)	Date	Time	< 40°C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
ETP, TCH- Inlet	22.09.24	12:20 PM	27	8.2	168	736	29.8	284	1.2
ETP, TCH- Outlet	22.09.24	12:25 PM	26	7.9	25	632	5.3	72	0.5
ETP, Garage- Inlet	22.09.24	01:30 PM	27	8.3	143	935	30.2	310	4.2
ETP, Garage- Outlet	22.09.24	01:35 PM	26	8.0	23	834	7.6	106	1.4
Final Settling Pond JCPP	22.09.24	10:05 AM				Dry Pond			
	ETP, TCH- Inlet ETP, TCH- Outlet ETP, Garage- Inlet ETP, Garage- Outlet	(Final Discharge Point)DateETP, TCH- Inlet22.09.24ETP, TCH- Outlet22.09.24ETP, Garage- Inlet22.09.24ETP, Garage- Outlet22.09.24	(Final Discharge Point)DateTimeETP, TCH- Inlet22.09.2412:20 PMETP, TCH- Outlet22.09.2412:25 PMETP, Garage- Inlet22.09.2401:30 PMETP, Garage- Outlet22.09.2401:35 PM	Location (Final Discharge Point)Sampling DateSampling TimeAmpling TimeETP, TCH- Inlet22.09.2412:20 PM27ETP, TCH- Outlet22.09.2412:25 PM26ETP, Garage- Inlet22.09.2401:30 PM27ETP, Garage- Outlet22.09.2401:35 PM26	Location (Final Discharge Point) Sampling Date Sampling Time Sampling 40°C Sampling 5.5 - 9.0 ETP, TCH- Inlet 22.09.24 12:20 PM 27 8.2 ETP, TCH- Outlet 22.09.24 12:25 PM 26 7.9 ETP, Garage- Inlet 22.09.24 01:30 PM 27 8.3 ETP, Garage- Outlet 22.09.24 01:35 PM 26 8.0	Location (Final Discharge Point) Sampling Date Sampling Time Impling (Marcharge Impline (Marcharge Impline (Marcharge <thimpl< td=""><td>Location (Final Discharge Point) Sampling Date Sampling Time Impling (Final Discharge Point) Sampling (Final Discharge Point) Sampling Date Sampling Time Final Discharge F</td><td>Location (Final Discharge Point) Sampling Date Sampling Time Item PPI Item <t< td=""><td>Location (Final Discharge Point) Sampling Date Sampling Time Sampling Time Fine Fine</td></t<></td></thimpl<>	Location (Final Discharge Point) Sampling Date Sampling Time Impling (Final Discharge Point) Sampling (Final Discharge Point) Sampling Date Sampling Time Final Discharge F	Location (Final Discharge Point) Sampling Date Sampling Time Item PPI Item Item <t< td=""><td>Location (Final Discharge Point) Sampling Date Sampling Time Sampling Time Fine Fine</td></t<>	Location (Final Discharge Point) Sampling Date Sampling Time Sampling Time Fine Fine

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All the parameters are within the limit, and you are requested to maintain the same.

This is for your information and necessary action please.

Enchato"

Lab.Assistant (Environment)

2

Area Manager (Environment)

Annexure- II

TATA STEEL LIMITED JHARIA DIVISION

Area Manager, Jamadoba Colliery Area Manager, Digwadih Colliery Area Manager,6&7 Pits Colliery

Ref. No. - JMB / ENV / LAB / 03 / S75/ 2024 Dated - 01 / 10 / 2024

Sub: MINE WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of SEPTEMBER'2024. The results are as given below:

	Location	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point) (Mine's Water)	Date	Time	< 40 ⁰ C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	2 Pit Jamadoba Colliery	22.09.24	09:35 AM	30	7.5	18	754	2.6	52	0
2	3 Pit Jamadoba Colliery	22.09.24	09:50 AM	32	7.6	22	810	2.8	76	0.6
3	2 Incline Jamadoba Colliery	22.09.24	10:25 AM	2		No	Discharge			
4	6 & 7 Pits Colliery	22.09.24	12:05 PM	30	7.4	24	867	2.1	84	0.5
5	Digwadih Colliery	22.09.24	11:55 AM	30	7.9	20	1064	2.5	54	0.8

2

All the parameters are within the limit, and you are requested to maintain the same. This is for your information and necessary action please.

Emahato . Lab.Assistant (Environment)

Annexure- II

TATA STEEL LIMITED JHARIA DIVISION

Area Manager, Jamadoba Colliery Area Manager, Digwadih Colliery Area Manager,6&7 Pits Colliery

Ref. No. - JMB / ENV / LAB / 03 / S75/ 2024 Dated - 01 / 10 / 2024

Sub: MINE WATER ANALYSIS REPORT.

We wish to inform you that Trade Effluent Sampling was carried out in JAMADOBA GROUP in the month of SEPTEMBER'2024. The results are as given below:

	Location	Sampling	Sampling	Temp	pH	TSS	TDS	BOD	COD	Oil & Grease
S. No	(Final Discharge Point) (Mine's Water)	Date	Time	< 40 ⁰ C	5.5 - 9.0	100 mg/l	2100 mg/l	30 mg/l	250 mg/l	10 mg/l
1	2 Pit Jamadoba Colliery	22.09.24	09:35 AM	30	7.5	18	754	2.6	52	0
2	3 Pit Jamadoba Colliery	22.09.24	09:50 AM	32	7.6	22	810	2.8	76	0.6
3	2 Incline Jamadoba Colliery	22.09.24	10:25 AM	2		No	Discharge			
4	6 & 7 Pits Colliery	22.09.24	12:05 PM	30	7.4	24	867	2.1	84	0.5
5	Digwadih Colliery	22.09.24	11:55 AM	30	7.9	20	1064	2.5	54	0.8

2

All the parameters are within the limit, and you are requested to maintain the same. This is for your information and necessary action please.

Emahato . Lab.Assistant (Environment)

D S	ISO/II	ADITI R&D SH Testing Labora NABL ACCREDI (A Constituent Board of Quality EC 17025:2017, ISO 9001:2015,ISO (0	atory TED / Council of In	ndia)	Plot No I-B-17 (P) Sindri, Industrial Area, P.O Domgarh, Dist Dha Iharkhand - 828107 Email ID: sindriaditi@gma Website: aditimdservices. Phone: 0326-2952377 (O) Fax: 0326-2952377 Mobile: 09471358492, 094	com),
Re	f. No.:	- ARDS/24-25/ AAQ/2		Date:	16.05.2024	
		TEST REPORT OF A	MBIENT A	IR QUALITY	TC	
٠	Na	TATA S JAMAD	OBA GROU	Contraction Contraction Contraction		
•	Wo		573/932 Dt.	9 XA		
	Da	te of Sample Collection : 09.05.20				
•		st Procedure : As per IS	24 to 15.05. -5182	2024		
•		st Procedure : As per IS	-5182 RESULTS			
•		st Procedure : As per IS <u>TEST</u> LOCATION - OFFICERS	-5182 <u>RESULTS</u> COLONY, 12			
•	Tes	st Procedure : As per IS <u>TEST</u> LOCATION – OFFICERS Avg. Ambient Temperature	-5182 RESULTS		y 28%	
•	Tes SI No.	st Procedure : As per IS <u>TEST</u> LOCATION - OFFICERS Avg. Ambient Temperature Particulars	-5182 RESULTS COLONY, 12 40°C Value	NO. DIGWADIH Avg. Humidit NAAQ - CPCE	STANDARD	
•	Tes SI No. 1.	st Procedure : As per IS <u>TEST</u> LOCATION - OFFICERS Avg. Ambient Temperature Particulars Particulate Matter (PM10), µg/m ³	-5182 RESULTS COLONY, 12 40°C Value 75.86	NO. DIGWADIH Avg. Humidit NAAQ - CPCE 100 µ	STANDARD	
	Tes SI No. 1. 2.	LOCATION – OFFICERS Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³	-5182 RESULTS COLONY, 12 40°C Value 75.86 43.60	NO. DIGWADIH Avg. Humidit NAAQ - CPCE 100 µ 60 µ	STANDARD gj/m ³	
	Tes SI No. 1. 2. 3.	st Procedure : As per IS <u>TEST</u> LOCATION - OFFICERS Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³	-5182 <u>RESULTS</u> COLONY, 12 40°C Value 75.86 43.60 17.38	NO. DIGWADIH Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ	g/m ³	
	Tes SI No. 1. 2. 3. 4.	st Procedure : As per IS <u>TEST</u> LOCATION - OFFICERS Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³	-5182 RESULTS COLONY, 12 40°C Value 75.86 43.60 17.38 26.54	NO. DIGWADIH Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ	sTANDARD gg/m ³ gg/m ² gg/m ³	
	Tes SI No. 1. 2. 3. 4. 5.	st Procedure : As per IS <u>TEST</u> LOCATION - OFFICERS Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³	-5182 RESULTS COLONY, 12 40°C Value 75.86 43.60 17.38 26.54 17.66	NO. DIGWADIH Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 80 µ 180 µ	STANDARD g/m ³ g/m ³ g/m ³ g/m ³ g/m ³	13.0
	Tes SI No. 1. 2. 3. 4. 5. 6.	st Procedure : As per IS <u>TEST</u> LOCATION - OFFICERS Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³	-5182 RESULTS COLONY, 12 40°C Value 75.86 43.60 17.38 26.54 17.66 14.90	NO. DIGWADIH Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 180 µ 400 µ	STANDARD g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ g/m ³	3.0
	Tes SI No. 1. 2. 3. 4. 5. 6. 7.	st Procedure : As per IS <u>TEST</u> LOCATION - OFFICERS Avg. Ambient Temperature Particulars Particulate Matter (PM10), µg/m ³ Particulate Matter (PM2.5), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³	-5182 RESULTS COLONY, 12 40°C Value 75.86 43.60 17.38 26.54 17.66 14.90 0.60	NO. DIGWADIH Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 180 µ 400 µ 4 mg	STANDARD g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ g/m ³	28.0
	Tes SI No. 1. 2. 3. 4. 5. 6. 7. 8.	st Procedure : As per IS <u>TEST</u> LOCATION - OFFICERS Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³	-5182 RESULTS COLONY, 12 40°C Value 75.86 43.60 17.38 26.54 17.66 14.90 0.60 BDL	NO. DIGWADIH Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 180 µ 400 µ 400 µ 1 µg	STANDARD g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ m ³	34.0
•	Tes SI No. 1. 2. 3. 4. 5. 6. 7. 8. 9.	st Procedure : As per IS <u>TEST</u> LOCATION - OFFICERS Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₆), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³ As, ng/m ³	-5182 RESULTS COLONY, 12 40°C Value 75.86 43.60 17.38 26.54 17.66 14.90 0.60 BDL BDL	NO. DIGWADIH Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 180 µ 400 µ 400 µ 4 mg 1 µg 6 ng	STANDARD g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ (m ³ (m ³	30
	Tes SI No. 1. 2. 3. 4. 5. 6. 7. 8.	st Procedure : As per IS <u>TEST</u> LOCATION - OFFICERS Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³	-5182 RESULTS COLONY, 12 40°C Value 75.86 43.60 17.38 26.54 17.66 14.90 0.60 BDL	NO. DIGWADIH Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 180 µ 400 µ 400 µ 1 µg	STANDARD g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ (m ³ (m ³ (m ³) (m ³)	

Sr. Chemist

Aditi R&D Services



Technical Manager Aditi R&D Services, Sindri

Statements :

1. The test report refers only to the particular item(s) submitted for testing.

2. The test results reported in this report are valid at the time of and under the stated condition of measurment.

A R D			ng Labora BL ACCREDI ard of Quality	atory TED / Council of In	dia)	Plot No I-B-17 (F Sindri, Industrial A/ P.O Domgarh, Di Jharkhand - 82810 Email ID: sindriadit Website: aditirndse Phone: 0326-295237 Fax: 0326-295237 Mobile: 094713584	rea, st Dhanbad 7 ti@gmail.com ervices.com 377 (O), 7
	Ref. No.:	- ARDS/24-25/ AAQ/3			Date	: 16.05.2024	
		TEST RE	PORT OF A		RQUALITY		0
	• Wo • Da • Da	ork Order Ref. NO. te of Sample Collectio te of Testing st Procedure	TATA S JAMAD DIST : 4700092 n : 09.05.20 : 11.05.20 : As per IS	OBA GROUI OBA GROUI DHANBAD (573/932 Dt. 24 to 10.05. 24 to 15.05.	P PLANT, JHARKHAND) 20.07.2021 2024		2
		LOCATION -	CENTRAL W	ORKSHOP A	REA , JAMADOB	A	
		Avg. Ambient Ten	nperature	40 ⁰ C	Avg. Humidi	ty 28%	1
	SI No.	Particulars		Value	NAAQ - CPCI	B STANDARD	
	1.	Particulate Matter (PM		88.46	100	µg/m³	
	2.	Particulate Matter (PM;	2.5), µg/m³	52.64	60 µ	ıg/m³ •	
	3.	SO ₂ µg/m ³		22.82	80 μ	ag/m ³	

1		Avg. Ambient Temperature	40°C	Avg. Humidity 28%
Par	0.	Particulars	Value	NAAQ - CPCB STANDARD
Par	51. B	Particulate Matter (PM10), µg/m3	88.46	100 µg/m ³
Par	1	Particulate Matter (PM _{2.5}), µg/m ³	52.64	60 µg/m ³ .
SO2	6 IL 8	SO ₂ , µg/m ³	22.82	80 µg/m ³
NO		NO ₂ , µg/m ³	32.64	80 µg/m ³
Ozo	10	Ozone, µg/m ³	17.48	180 µg/m ³
NH3		NH ₃ , µg/m ³	17.60	400 µg/m ³
CO,	8	CO, mg/m ³	0.93	4 mg/m ³
Þb,		Pb, µg/m ³	BDL	1 µg/m ³
As,	1 53	As, ng/m ³	BDL	6 ng/m ³
Ni, I		Ni, ng/m ³	BDL	20 ng/m ³
Ben	8 I S	Benzene, µg/m3	BDL	5 µg/m ³
Ben		Benzoapyrene ng/m ³	BDL	1 ng/m ¹
Ben				

-8-12 004

Sr. Chemist

Aditi R&D Services



Technical Manager Aditi R&D Services, Sindri

Statements :

1. The test report refers only to the particular item(s) submitted for testing.

2. The test results reported in this report are valid at the time of and under the stated condition of measurment.

ISO/II	ADITI R&D SE Testing Labora NABL ACCREDIT (A Constituent Board of Quality EC 17025:2017, ISO 9001:2015,ISO (C	atory TED Council of In	dia)	tot No I-B-17 (P) indri, Industrial Area, O Domgarh, Dist Dhanba harkhand - 828107 mail ID: sindriaditi@gmail.co Vebsite: aditimdservices.com hone: 0326-2952377 (O), ax: 0326-2952377 Iobile: 09471358492, 094315
Ref. No.:	- ARDS/24-25/ AAQ/4		Date:	16.05.2024
	TEST REPORT OF A	MBIENT A	IR QUALITY	
• Na	TATA S JAMAD	OBA GROU		
• Da • Da	te of Sample Collection : 09.05.20	24 To 15.05.2	2024	
		RESULTS		
	LOCATION - TATA			
	Avg. Ambient Temperature	40°C	Avg. Humidity	
SI No.	Particulars	Value	NAAQ - CPCB	STANDARD
1.	Particulars Particulate Matter (PM ₁₀), µg/m ³	Value 70.08	NAAQ - CPCB 100 µ	STANDARD
1. 2.	Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³	Value 70.08 40.57	ΝΑΑQ - CPCB 100 μ 60 μg	STANDARD g/m ³
1. 2. 3.	Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³	Value 70.08 40.57 16.18	NAAQ - CPCB 100 µ 60 µg 80 µg	STANDARD g/m ³ g/m ³
1. 2. 3. 4.	Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³	Value 70.08 40.57 16.18 25.80	NAAQ - CPCB 100 µ 60 µg 80 µg 80 µg	STANDARD g/m ³ 1/m ³ 1/m ³
1. 2. 3. 4. 5.	Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³	Value 70.08 40.57 16.18 25.80 16.32	NAAQ - CPCB 100 µ 60 µg 80 µg 80 µg 180 µ	STANDARD g/m ³ i/m ³ i/m ³ g/m ³
1. 2. 3. 4. 5. 6.	Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ <i>Ozone</i> , µg/m ³ NH ₃ , µg/m ³	Value 70.08 40.57 16.18 25.80 16.32 17.57	NAAQ - CPCB 100 µ 60 µg 80 µg 80 µg 180 µ 400 µ	STANDARD g/m ³ µ/m ³ µ/m ³ g/m ³ g/m ³
1. 2. 3. 4. 5. 6. 7.	Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ <i>Ozone</i> , µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³	Value 70.08 40.57 16.18 25.80 16.32 17.57 0.88	NAAQ - CPCB 100 µ 60 µg 80 µg 80 µg 180 µ 400 µ 4 mg	STANDARD g/m ³ y/m ³ y/m ³ g/m ³ g/m ³ g/m ³
1. 2. 3. 4. 5. 6. 7. 8.	ParticularsParticulate Matter (PM10), μg/m3Particulate Matter (PM25), μg/m3SO2, μg/m3NO2, μg/m3Ozone, μg/m3NH3, μg/m3CO, mg/m3Pb, μg/m3	Value 70.08 40.57 16.18 25.80 16.32 17.57 0.88 BDL	NAAQ - CPCB 100 µg 60 µg 80 µg 80 µg 180 µg 400 µ 4 mg 1 µg/	STANDARD g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ g/m ³
1. 2. 3. 4. 5. 6. 7. 8. 9.	Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³ As, ng/m ³	Value 70.08 40.57 16.18 25.80 16.32 17.57 0.88 BDL BDL	NAAQ - CPCB 100 µ 60 µg 80 µg 80 µg 180 µ 400 µ 400 µ 1 µg/ 6 ng/	STANDARD g/m ³ µ/m ³ µ/m ³ g/m ² g/m ² g/m ³ m ³ m ³
1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ <i>Ozone</i> , µg/m ³ Ozone, µg/m ³ CO, mg/m ³ Pb, µg/m ³ As, ng/m ³ Ni, ng/m ³	Value 70.08 40.57 16.18 25.80 16.32 17.57 0.88 BDL BDL BDL BDL	NAAQ - CPCB 100 µ 60 µg 80 µg 80 µg 180 µ 400 µ 4 mg 1 µg/ 6 ng/ 20 ng	STANDARD g/m ³ y/m ³ y/m ³ g/m ³ g/m ³ g/m ³ g/m ³ m ³ m ³
1. 2. 3. 4. 5. 6. 7. 8. 9.	Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³ As, ng/m ³	Value 70.08 40.57 16.18 25.80 16.32 17.57 0.88 BDL BDL	NAAQ - CPCB 100 µ 60 µg 80 µg 80 µg 180 µ 400 µ 400 µ 1 µg/ 6 ng/	STANDARD g/m ³ y/m ³ y/m ³ g/m ³ g/m ³ g/m ³ m ³ m ³ m ³

- 2. The test results reported in this report are valid at the time of and under the stated condition of measurment.
- 3. This particular test report cannot be reproduced except in full, without prior written permission of Quality Manager of the laboratory.

s) ISO/	ADITI R&D SI Testing Labor NABL ACCRED (A Constituent Board of Quality IEC 17025:2017, ISO 9001:2015,ISO (0	atory ITED y Council of In	ndia)	Plot No I-8-17 (P Sindri, Industrial Ar P.O Domgarh, Dis Jharkhand - 82810 Email ID: sindriadit Website: aditimdse Phone: 0326-2952 Fax: 0326-2952377 Mobile: 094713584	rea, st Dhanbad 7 ti@gmail.com ervices.com 977 (O), 7
Ref. No.:	- ARDS/24-25/AAQ/1		Date	16.05.2024	
	TEST REPORT OF A	MBIENT A	IR QUALITY		
• Da	DIST ork Order Ref. NO.: : 4700092 ate of Sample Collection : 09.05.20	573/932 Dt. 24 To 10.05.2	JHARKHAND) 20.07.2021		
• Te	st Procedure : As per IS	24 To 15.05.2 -5182	2024		
• Te	st Procedure : As per IS	-5182 RESULTS			
• Te	st Procedure : As per IS TEST LOCATION - 6 & 7	-5182 RESULTS PITS COLLIE	RY OFFICE	•	
	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature	-5182 RESULTS PITS COLLIE 40 ⁰ C	RY OFFICE Avg. Humidit	•	
SI No.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars	-5182 RESULTS PITS COLLIE 40°C Value	RY OFFICE Avg. Humidit NAAQ - CPCE	STANDARD	
SI No. 1.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 40°C Value 89.38	RY OFFICE Avg. Humidit NAAQ - CPCE 100 ;	s STANDARD	
SI No. 1. 2.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³	-5182 RESULTS PITS COLLIE 40°C Value 89.38 52.81	RY OFFICE Avg. Humidit NAAQ - CPCE 100 µ 60 µ	g/m ³	
SI No. 1. 2. 3.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³	-5182 <u>RESULTS</u> PITS COLLIE 40°C Value 89.38 52.81 23.15	RY OFFICE Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ	g/m ³ g/m ³	
SI No. 1. 2. 3. 4.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³	-5182 RESULTS PITS COLLIE 40°C Value 89.38 52.81 23.15 28.46	RY OFFICE Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ	g/m ³ g/m ³ g/m ³	
SI No. 1. 2. 3.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³	-5182 RESULTS PITS COLLIE 40°C Value 89.38 52.81 23.15 28.46 17.83	RY OFFICE Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 180 µ	g/m ³ g/m ³ g/m ³ g/m ³ g/m ³ g/m ³	
SI No. 1. 2. 3. 4. 5. 6.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ NO ₂ , µg/m ³ NH ₃ , µg/m ³	-5182 RESULTS PITS COLLIE 40°C Value 89.38 52.81 23.15 28.46 17.83 14.88	RY OFFICE Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 180 µ 400 µ	3 STANDARD ug/m ³ g/m ³ g/m ³ ug/m ³ ug/m ³ ug/m ³	
SI No. 1. 2. 3. 4. 5.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ NO ₂ , µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³	-5182 RESULTS PITS COLLIE 40°C Value 89.38 52.81 23.15 28.46 17.83 14.88 0.82	RY OFFICE Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 180 µ 180 µ 400 µ	3 STANDARD ug/m ³ g/m ³ g/m ³ ug/m ³ ug/m ³ ug/m ³ ug/m ³ ug/m ³	
SI No. 1. 2. 3. 4. 5. 6. 7.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³	-5182 RESULTS PITS COLLIE 40°C Value 89.38 52.81 23.15 28.46 17.83 14.88 0.82 BDL	RY OFFICE Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 180 µ 400 µ 400 µ 1 µg	3 STANDARD 19/m ³ g/m ³ g/m ³ 19/m ³ 19/m ³ 19/m ³ 1/m ³	
SI No. 1. 2. 3. 4. 5. 6. 7. 8.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ NO ₂ , µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³	-5182 RESULTS PITS COLLIE 40°C Value 89.38 52.81 23.15 28.46 17.83 14.88 0.82 BDL BDL	RY OFFICE Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 180 µ 400 µ 4 mg 1 µg 6 ng	3 STANDARD 19/m ³ g/m ³ g/m ³ 19/m ³ 19/m ³ 19/m ³ 1/m ³ 1/m ³	
SI No. 1. 2. 3. 4. 5. 6. 7. 8. 9.	st Procedure : As per IS <u>TEST</u> LOCATION - 6 & 7 Avg. Ambient Temperature Particulars Particulate Matter (PM ₁₀), µg/m ³ Particulate Matter (PM _{2.5}), µg/m ³ SO ₂ , µg/m ³ NO ₂ , µg/m ³ NO ₂ , µg/m ³ CO, mg/m ³ Pb, µg/m ³ As, ng/m ³	-5182 RESULTS PITS COLLIE 40°C Value 89.38 52.81 23.15 28.46 17.83 14.88 0.82 BDL	RY OFFICE Avg. Humidit NAAQ - CPCE 100 µ 60 µ 80 µ 80 µ 180 µ 400 µ 400 µ 1 µg	3 STANDARD ag/m ³ g/m ³ g/m ³ ag/m ³ ag	

NOTE: BDL - Below Detection Limit

Sr. Chemist

Aditi R&D Services



Technical Manager Aditi R&D Services, Sindri

Statements :

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ISO/	NA	ing Laboratory BL ACCREDITED pard of Quality Coun	cil of India)		Sindri, P.O D Jharkh Ernail I Websit Phone: Fax: 03	 b I-B-17 (P) Industrial Area, Industrial Area,	com m
Ref. No.:	- ARDS/24-25/MINER./	1		C	ate: 14.0	5.2024	
	TEST REPOR	T OF MINERALO	GICAL C	OMPOS	TION		
	<u>c</u>	OF PARTICULATE	MATTE	R			
• w	ame of the industry ork Order Ref. NO. ate of Sample Collectio ate of Testing	: M/S TATA ST TATA STEEL JAMADOBA DIST DHAN : 4700092573/93 on : 10.05.2024 : 11.05.2024 To	GROUP P BAD (JHA 2 Dt. 20.0) PLANT, ARKHANI 07.2021)		
• D							
• 0		TEST RESU	LTS				
• Di	Particulars	TEST RESU		ralogical (Compositi	ion (%)	
	Particulars	TEST RESU		alogical (FeO	Compositi Al ₂ O ₃	ion (%) CaO	
	Particulars Central Workshop /		Miner		And some services of	and and a	

Sr. Chemist Aditi R&D Services



Technical Manager Aditi R&D Services, Sindri

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S July		CCREDITED	ncil of India)	Continue	Plot No I-B-17 (P) sindri, Industrial Area, P.O Domgarh, Dist Dhanbac harkhand - 828107 mail ID: sindriaditi@gmail.com Vebsite: aditirndservices.com Phone: 0326-2952377 (O); ax: 0326-2952377 Nobile: 09471358492, 094315
Ref.	No.: - ARDS/24-25/SW/1			Date:	17.05.2024
	TEST REPO	RT OF SU	RFACE W	VATER	
:		1. Damo	GROUP PI NBAD (JHA 573/932 Dt odar River L	LANT, RKHAND) . 20.07.2021	
	Date of Sample Collection: Date of Testing : Test :		24 To 16.0	5.2024 DO, BOD, C	I, F, SO₄
		TEST RES	ULT		
SI. No.	PARAMETERS OF TEST	VA Damodar River Up Stream	LUE Damodar River Dn Stream	Limit as per IS 229 Class - C	5 Method
	рН	7.8	8.0	6.5 -8.5	IS-3025 (P-11): 1983
1.	Contractor and provide a	410	432	1500	IS-3025 (P-16): 1984
1. 2.	Total Dissolved Solids, mg/l	410			T Detected as a selected of the Selected as the Selected as a selecte
	Total Dissolved Solids, mg/l Turbidity, NTU	2.0	2.4		IS-3025 (P-10):1984
2.			2.4 4.0	- 4.0 (Min)	IS-3025 (P-10):1984 IS-3025 (P-38):1989
2. 3.	Turbidity, NTU	2.0			IS-3025 (P-38):1989 IS-3025 (P-44):1994
2. 3. 4.	Turbidity, NTU Dissolved Oxygen, mg/l Bio chemical Oxygen	2.0 4.2	4.0	4.0 (Min)	IS-3025 (P-38):1989 IS-3025 (P-44):1994
2. 3. 4. 5.	Turbidity, NTU Dissolved Oxygen, mg/l Bio chemical Oxygen Demand, mg/l	2.0 4.2 1.6	4.0 2.0	4.0 (Min) 3.0	IS-3025 (P-38):1989 IS-3025 (P-44):1994

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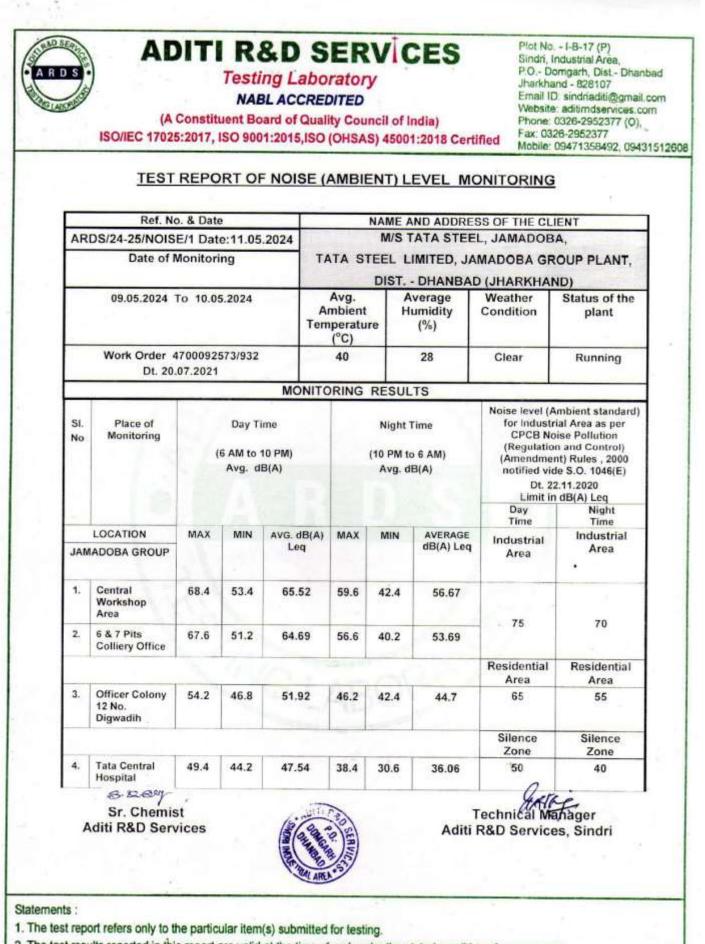


Technical Manager Aditi R&D Services, Sindri

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2. The test results reported in this report are valid at the time of and under the stated condition of measurment.

			Annexure-
Test NA (A Constituent B	ing La BLACC oard of C	SERVICES boratory REDITED Quality Council of India) ISO (OHSAS) 45001:2018 Certified	Plot No I-B-17 (P) Sindri, Industrial Area, P.O Domgarh, Dist - Dhanbad Jharkhand - 828107 Emall ID: sindriaditi@gmail.com Website: aditimdservices.com Phone: 0326-2952377 (O), Fax: 0326-2952377 Mobile: 09471358492, 09431512608
Ref. No.: - ARDS/24-25/MWD/1		Dat	e: 16.05.2024
TEST REPO	ORT O	F MINE WATER DISCHARC	<u>SE</u>
Name of the industry	:	M/S TATA STEEL, JAMADOB TATA STEEL LIMITED JAMADOBA GROUP PLANT, DIST DHANBAD (JHARKHA	
 Work Order Ref. NO.: Sample Code 	:	 4700092573/932 Dt. 20.07.2021 1. 2 Pit Jamadoba Collier 2. 3 Pit Jamadoba Collier 3. 6 & 7 Pits Colliery 4. Digwadih Colliery 	y
Date of Sample Collec	tion:	09.05.2024 To 10.05.2024	
 Date of Testing 	:	11.05.2024 To 15.05.2024	
Test	:	pH, TDS, TSS, BOD, COD, OIL	& GREASE.
	I	ESTRESULT	

SI.	PARAMETERS OF		VALU	E		Limit as	Test
No.	TEST	2 Pit Jamadoba Colliery	3 Pit Jamadoba Colliery	6 & 7 Pits Colliery	Digwadih Colliery	per IS-2296 Class B (For Bathing)	Method .
1.	pH,	8.2	7.8	8.3	8.0	6.5-8.5	IS-3025 (P-11) 1983
2	Total Dissolved Solids, mg/I	865	860	980	907		IS-3025 (P-16): 1984
3.	Total Suspended Solids, mg/I	38	40	42	35		IS-3025(P-17) : 1984
4.	Bio chemical Oxygen Demand, mg/l	1.8	2.0	2.6	2.8	3	IS-3025 (P- 44):1994
5.	Chemical Oxygen Demand, mg/l	66	66	80	80		IS-3025 (P- 58):2006
6.	Oil & Grease, mg/l	B.D.L	B.D.L	B.D.L	B.D.L		IS-3025 (P- 39):2021

Sr. Chemist

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Technical Manager Aditi R&D Services, Sindri

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RAD R	DS	Tes N onstituent	ting Labo ABL ACCRE Board of Qua	DITED lity Counci	l of India)		Jharkhand - 8 Email ID: sind Website: aditin Phone: 0326-2 Fax: 0328-295	ial Áréa, h, Dist Dhanbad 28107 ríaditi@gmail.com mdservices.com 2952377 (O),
	Ref. No.: - ARDS/24-	25/STP/1				Da	ate: 16.05.2024	8
		T	EST REPO	ORT OF	SEWAG	E		e
	 Name of the i Work Order F Sample Cod 	Ref. NO.:	ד ג נ : 4	M/S TATA STE ATA STE AMADOB DIST DH/ 700092573 . STP Out	EL LIMI A GROU ANBAD (/932 Dt.	TED P PLAN JHARKH 20.07.202	Г, AND) 21	
	 Date of Sam Date of Test Test 	<u>.</u>	4 5 ction: 0 : 1 : p a	. STP Out 9.05.2024 0.05.2024 H, TDS, T nd Fecal (let- Jmb. let- JCPF To 10.0 To 15.0 SS, BOD Coliform.	Canteen Canteen 5.2024 95.2024 , COD, O		
		14 10	TES	TRESULT		-		
й. о.	PARAMETERS OF TEST	STP Outlet Railway Colony	STP Outlet Digwadih 12 No Officers Colony	VALUE STP Outlet Digwadi h 12 No. Supervis or flat	STP Outlet Jmb. Cantee n	STP Outlet- JCPP Cantee n	As per MoEF&CC Notification dated 13 th Oct. 2017 for. Sewage Treatment Plant	Test Method
B.	pH,	8.5	8.3	7.9	7.4	8.0	6.5-9.0	IS-3025(P- 11):1983
E	Total Dissolved Solids, mg/I	1170	892	1415	1020	1105	•	IS-3025(P- 16):1984
Q	Total Suspended Solids, mg/l	54	46	48	39	40	100	IS-3025(P- 17):1984
	Bio chemical Oxygen Demand, mg/l	6.6	8.4	9.0	2.4	4.8	30	IS-3025(P- 44):1994
4	Chemical Oxygen Demand, mg/l	88	95	117	44	73	250	IS-3025(P- 58):2006
ki li		3.6	2.8	9	0.4	B.D.L		IS-3025(P- 39):2021
	Oil & Grease, mg/l		the second s				-1000	
k.		759	654	600	636	542	<1000 MPN/100ml	IS - 1622

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R D	(A Constituent Boa	g Labora ACCREDI rd of Quality	tory TED Council of	i India)	Piot No I-B-17 (P) Sindri, Industrial Area, P.O Domgarh, Dist Dhanbad Jharkhand - 828107 Email ID: sindriaditi@gmail.com Website: aditimdservices.com Phone: 0326-2952377 (O), Fax: 0326-2952377
	ISO/IEC 17025:2017, ISO 9001 Ref. No.: - ARDS/24-25/ETP/1	:2015,150 (0	HSAS) 450		Mobile: 09471358492, 09431512
		DEDODI			
	IESI	REPORT	OF EFI	LUENT	
	 Name of the industry 	TA JAI	TA STEEL	EEL, JAMADO L LIMITED GROUP PLAN IBAD (JHARKH	т,
	Work Order Ref. NO.:	: 470	0092573/93	32 Dt. 20.07.20	21
	Sample Code	: 1. E	T.P. Out	et T.C.H.	
		2. E	T.P. Out	et Garage	
	 Date of Sample Collection Date of Testing Test 	: 10. : pH,	05.2024 T	o 10.05.2024 o 15.05.2024 S, BOD, COD, C	DIL & GREASE.
SI.	PARAMETERS OF TEST	VAL	UE	General	Test
No.		E.T.P. Outlet T.C.H.	E.T.P. Outlet Garage	Standard for discharge of Environmental Pollutants, Inland Surface water by the MoEF&C	Method .
1,	pH,	8.6	8.4	5.5-9.0	IS-3025 (P-11): 1983
2.	Total Dissolved Solids, mg/l	859	990	•	IS-3025 (P-16): 1984
3.	Total Suspended Solids, mg/l	43	48	100	IS-3025(P-17) : 1984
4,	Bio chemical Oxygen Demand, mg/l	3.0	7.8	30	IS-3025 (P-44):1994
5.	Chemical Oxygen Demand, mg/l	66	102	250	IS-3025 (P-58):2006
6.	Oil & Grease, mg/l	B.D.L	3.1	10	IS-3025 (P-39):2021
	Note : BDL - Below Detection Limit	(NOITI	REDSE	Tect	nical Manager

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A A A A A A A A A A A A A A A A A A A		NABL A	Laborate ACCREDITE of Quality C	ory D council of In	ndia)	Sind P.O. Jhar Ema Web Phot	khand - 828 il ID: sindri site: aditim ne: 0326-29 0326-2952	Il Àrea, Dist Dhanbad 8107 aditi@gmail.con dservices.com 852377 (O),
Ref.	No.: - ARDS/24-25	/DW/1 TEST RE	PORT OF	DRINKING	WATER	Date: 16	.05.2024	e.
	 Name of the in Work Order Re 		JAMADO	EEL LIMI BA GROU HANBAD (TED P PLANT, JHARKHA	ND)		
8	Sample Code		1. Ca 2. Ca 3. Ca 4. Ca	inteen- Ja inteen- Ja inteen- Dig inteen- 6& 5.2024 To	madoba C madoba W gwadih Co 7 Pits Col	olliery /ashery olliery liery		
	 Test Colour, Odour, 1 Dissolved, Solid 	s Calcium	Copper. M	anganése.	Sulphate, N	litrate, Flu	ioride, Pl	nenolic
	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine	s, Calcium, rcury, Cadmi	Copper, M ium, Arsenio ity, Aluminiu	anganese, c, Cyanide, m & Boron. <u>RESULT</u>	Lead, Zir	Itrate, Flu nc, Total	Coliform,	nenolic
SI. No	Colour, Odour, 1 Dissolved Solid Compound, Me	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba	Copper, M ium, Arsenic ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba	anganese, c, Cyanide, m & Boron. RESULT UE Canteen Digwadih	Sulphate, N Lead, Zir Canteen- 6&7 Pits	nc, Total	Coliform,	Total
SI.	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST Colour, (Hazen	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen-	Copper, M ium, Arsenio ity, Aluminiu <u>TEST R</u> VAL Canteen-	anganese, c, Cyanide, m & Boron. <u>RESULT</u> UE Canteen	Sulphate, N Lead, Zir Canteen-	Is as p 10500 10500	er IS 2012 Permi	Total
SI. No	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba Colliery	Copper, M ium, Arsenio ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba Washery	anganese, c, Cyanide, m & Boron. RESULT UE Canteen Digwadih Colliery	Sulphate, N Lead, Zir Canteen- 6&7 Pits Colliery	Itrate, Fluinc, Total IS as p 10500: Desirab Ie 5.00 Agreeabl e	er IS 2012 Permi ssible 15.0 Agree , able	Total Test Method IS 3025 (P-4):2021 IS 3025 (P- 5):2018
SI. No 1.	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit)	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba Colliery 1 Agreeable Agreeable	Copper, M ium, Arsenid ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable	anganese, c, Cyanide, m & Boron. RESULT UE Canteen Digwadih Colliery 1 Agreeable Agreeable	Sulphate, N Lead, Zir Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable	Itrate, Flu nc, Total IS as p 10500: Desirab le 5.00 Agreeabl e Agreeabl e	er IS 2012 Permi ssible 15.0 Agree able Agree able	Test Method IS 3025 (P-4):2021 IS 3025 (P- 5):2018 IS 3025 (P- 7):2017
SI. No 1. 2.	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba Colliery 1 Agreeable Agreeable NIL	Copper, M ium, Arsenio ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable 2.0	anganese, c, Cyanide, m & Boron. <u>RESULT</u> UE Canteen Digwadih Colliery 1 Agreeable Agreeable NIL	Sulphate, N Lead, Zir Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable NIL	Itrate, Fit nc, Total IS as p 10500; Desirab le 5.00 Agreeabl e 1.0	er IS 2012 Permi ssible 15.0 Agree able 5.0	Test Method IS 3025 (P-4):2021 IS 3025 (P- 5):2018 IS 3025 (P- 7):2017 IS 3025 (P- 10):1984
SI. No 1. 2. 3. 4. 5.	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba Colliery 1 Agreeable Agreeable NIL 8.4	Copper, M ium, Arsenid ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable 2.0 8.2	anganese, c, Cyanide, m & Boron. <u>RESULT</u> UE Canteen Digwadih Colliery 1 Agreeable Agreeable NIL 8.2	Sulphate, N Lead, Zir Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable NIL 8.1	Itrate, Fit hc, Total IS as p 10500: Desirab le 5.00 Agreeabl e Agreeabl e 1.0 6.5-8.5	er IS 2012 Permi ssible 15.0 Agree able 5.0 No. Relax.	Test Method IS 3025 (P-4):2021 IS 3025 (P- 5):2018 IS 3025 (P- 7):2017 IS 3025 (P- 10):1984 IS-3025 (P- 11):1983
SI. No 1. 2. 3. 4.	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH Total Hardness as CaCO ₃ , mg/l	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba Colliery 1 Agreeable Agreeable NIL 8.4 308	Copper, M ium, Arsenid ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba Washery 1 Agreeable 2.0 8.2 300	anganese, c, Cyanide, m & Boron. <u>RESULT</u> UE Canteen Digwadih Colliery 1 Agreeable Agreeable NIL 8.2 304	Sulphate, N Lead, Zir Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable NIL 8.1 220	Itrate, Fit hc, Total IS as p 10500: Desirab le 5.00 Agreeabl e Agreeabl e 1.0 6.5-8.5 200	er IS 2012 Permi ssible 15.0 Agree - able Agree able 5.0 No. Relax. 600	Test Method IS 3025 (P-4):2021 IS 3025 (P- 5):2018 IS 3025 (P- 7):2017 IS 3025 (P- 10):1984 IS-3025 (P- 11):1983 IS 3025 (P- 11):1983
SI. No 1. 2. 3. 4. 5.	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH Total Hardness as CaCO ₃ , mg/l Chloride as Cl, mg/l	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba Colliery 1 Agreeable Agreeable NIL 8.4 308 71.8	Copper, M ium, Arsenid ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba Washery 1 Agreeable 2.0 8.2 300 67.88	anganese, c, Cyanide, m & Boron. RESULT UE Canteen Digwadih Colliery 1 Agreeable Agreeable NIL 8.2 304 73.7	Sulphate, N Lead, Zir Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable NIL 8.1 220 27.2	Itrate, Fit hc, Total IS as p 10500: Desirab le 5.00 Agreeabl e 1.0 6.5-8.5 200 250	er IS 2012 Permi ssible 15.0 Agree able 5.0 No. Relax. 600 1000	Test Method IS 3025 (P-4):2021 IS 3025 (P- 5):2018 IS 3025 (P- 7):2017 IS 3025 (P- 10):1984 IS:3025 (P- 11):1983 IS 3025 (P- 21):2009 IS 3025 (P- 32):1988
SI. No 1. 2. 3. 4. 5. 6.	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH Total Hardness as CaCO ₃ , mg/l Chloride as Cl, mg/l Res. Free chlorine as Cl ₂	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba Colliery 1 Agreeable Agreeable NIL 8.4 308	Copper, M ium, Arsenid ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba Washery 1 Agreeable 2.0 8.2 300	anganese, c, Cyanide, m & Boron. <u>RESULT</u> UE Canteen Digwadih Colliery 1 Agreeable Agreeable NIL 8.2 304	Sulphate, N Lead, Zir Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable NIL 8.1 220 27.2 NIL	Itrate, Fit hc, Total IS as p 10500: Desirab le 5.00 Agreeabl e 1.0 6.5-8.5 200 250 0.20	er IS 2012 Permi ssible 15.0 Agree able 5.0 No. Relax. 600 1000 1.0	Test Method IS 3025 (P-4):2021 IS 3025 (P- 5):2018 IS 3025 (P- 7):2017 IS 3025 (P- 10):1984 IS-3025 (P- 11):1983 IS 3025 (P- 21):2009 IS 3025 (P- 32):1988 IS 3025 (P- 32):1988
SI. No 1. 2. 3. 4. 5. 6. 7.	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH Total Hardness as CaCO ₃ , mg/l Chloride as Cl, mg/l Res. Free chlorine as Cl ₂ mg/l Total Dissolved	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba Colliery 1 Agreeable Agreeable NIL 8.4 308 71.8	Copper, M ium, Arsenid ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba Washery 1 Agreeable 2.0 8.2 300 67.88	anganese, c, Cyanide, m & Boron. RESULT UE Canteen Digwadih Colliery 1 Agreeable Agreeable NIL 8.2 304 73.7	Sulphate, N Lead, Zir Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable NIL 8.1 220 27.2	Itrate, Fit hc, Total IS as p 10500: Desirab le 5.00 Agreeabl e 1.0 6.5-8.5 200 250	er IS 2012 Permi ssible 15.0 Agree able 5.0 No. Relax. 600 1000	Test Method IS 3025 (P-4):2021 IS 3025 (P- 5):2018 IS 3025 (P- 7):2017 IS 3025 (P- 10):1984 IS-3025 (P- 11):1983 IS 3025 (P- 21):2009 IS 3025 (P- 22):1988 IS 3025 (P- 26):2021 IS 3025 (P- 16):1984
SI. No 1. 2. 3. 4. 5. 6. 7. 8.	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH Total Hardness as CaCO ₃ , mg/l Chloride as Cl, mg/l Res. Free chlorine as Cl ₂ mg/l Total Dissolved Solids, mg/l Calcium as	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba Colliery 1 Agreeable Agreeable NIL 8.4 308 71.8 NIL	Copper, M ium, Arsenid ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba Washery 1 Agreeable 2.0 8.2 300 67.88 NIL	anganese, c, Cyanide, m & Boron. <u>RESULT</u> UE Canteen Digwadih Colliery 1 Agreeable Agreeable NIL 8.2 304 73.7 NIL	Sulphate, N Lead, Zir Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable NIL 8.1 220 27.2 NIL	Itrate, Fit hc, Total IS as p 10500; Desirab le 5.00 Agreeabl e 1.0 6.5-8.5 200 250 0.20 500 500 575	er IS 2012 Permi ssible 15.0 Agree able 5.0 No. Relax. 600 1000 1.0 2000 200	Test Method IS 3025 (P-4):2021 IS 3025 (P- 5):2018 IS 3025 (P- 7):2017 IS 3025 (P- 10):1984 IS-3025 (P- 21):2009 IS 3025 (P- 21):2009 IS 3025 (P- 26):2021 IS 3025 (P- 26):2021 IS 3025 (P- 16):1984 IS 3025 (P- 16):1984
SI. No 1. 2. 3. 4. 5. 6. 7. 8. 9.	Colour, Odour, 1 Dissolved Solid Compound, Me Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH Total Hardness as CaCO ₃ , mg/l Chloride as Cl, mg/l Res. Free chlorine as Cl ₂ mg/l Total Dissolved Solids, mg/l Calcium as CaCO ₃ , mg/l	s, Calcium, rcury, Cadmi ral Oil, Alkalin Canteen- Jamadoba Colliery 1 Agreeable Agreeable NIL 8.4 308 71.8 NIL 580	Copper, M ium, Arsenid ity, Aluminiu <u>TEST R</u> VAL Canteen- Jamadoba Washery 1 Agreeable 2.0 8.2 300 67.88 NIL 584	anganese, c, Cyanide, m & Boron. <u>RESULT</u> UE Canteen Digwadih Colliery 1 Agreeable Agreeable NIL 8.2 304 73.7 NIL 605	Sulphate, N Lead, Zir Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable NIL 8.1 220 27.2 NIL 310	Itrate, Fit hc, Total IS as p 10500; Desirab le 5.00 Agreeabl e 1.0 6.5-8.5 200 250 0.20 500	er IS 2012 Permi ssible 15.0 Agree able 5.0 No. Relax. 600 1000 1.0 2000	Test Method IS 3025 (P-4):2021 IS 3025 (P- 5):2018 IS 3025 (P- 7):2017 IS 3025 (P- 10):1984 IS-3025 (P- 21):2009 IS 3025 (P- 21):2009 IS 3025 (P- 26):2021 IS 3025 (P- 26):2021 IS 3025 (P- 16):1984 IS 3025 (P- 16):1984

1. The test report refers only to the particular item(s) submitted for testing.

2. The test results reported in this report are valid at the time of and under the stated condition of measurment.

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			- 2	2 -				1.62
SI.	PARAMETERS OF		VAL	JE			per IS	Test
No.	TEST	Canteen- Jamadoba Colliery	Canteen Jamadoba Washery	Canteen Digwadih Colliery	Canteen - 6&7 Pits Colliery	Desira ble	0:1991 Permis sible	Method
12.	Manganese as Mn, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.10	0.30	IS 3025 (P- 59):2006
13.	Sulphate as SO ₄ , mg/l	50.14	57.6	59.7	37.9	200	400	IS 3025 (P- 24):1986
14.	Nitrate as NO ₃ , mg/l	4.6	6.2	4.2	3.7	45	No. Relax	IS 3025 (P- 34):1988
15.	Fluoride as F, mg/l	0.40	0.32	0.28	0.35	1.0	1.5	IS 3025 (P- 60):2008
16.	Phenolic Compound as (C6H5OH) mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.001	0.002	IS 3025 (P- 43):1992
17.	Mercury as Hg, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.001	No. Relax	IS 3025 (P- 48):1994
18.	Cadmium as Cd, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.003	No. Relax	IS 3025 (P- 41):1992
19.	Arsenic as As, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.01	No. Relax	IS 3025 (P- 37):1988
20.	Cyanide as CN, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.05	No. Relax	IS 3025 (P- 27):1986
21.	Lead as Pb, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.01	No. Relax	IS 3025 (P- 47):1994
22.	Zinc as Zn, mg/l,	0.18	0.22	0.20	0.12	5	15	IS 3025 (P- • 42):1992
23.	Total Coliform, No./100ml	Absent	Absent	Absent	Absent	Absen t	Absent	IS 3025 (P- 49):1994
24.	Total Chromium as Cr, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.05	No. Relax	IS 3025 (P- 52):2003
25.	Mineral Oil, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.5	No. Relax	IS 3025 (P- 39):1989
26.	Alkalinity as CaCO ₃ , mg/l,	499.2	489.6	518.4	196.8	200	600	IS 3025 (P- 23):1983
27.	Aluminium as Al, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.03	0.2	IS 3025 (P- 55):2003
28.	Boron as B, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	0.5	1.0	IS 3025 (P- 57):2005

NOTE: BDL - Below Detection Limit

Sr. Chemist Aditi R&D Services

Technical Manager Aditi R&D Services, Sindri



Statements :

1. The test report refers only to the particular item(s) submitted for testing.

2. The test results reported in this report are valid at the time of and under the stated condition of measurment.

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	 Name Work Samp Date 	e of the inc Order Ref ble Code	TEST dustry f. NO.	JAMAI DIST : 470009 : 1. 2. 3. 4. 5. 6. n : 10	ATA STE STEEL DOBA G DHANB 2573/93 Purnad Digwad Kendua Upper I Kalimel 6&7 Pit 0.05.202	EL, JAN LIMITEI ROUP AD (JH 2 Dt. 1 ih (Jor. ih 10 N idih Bas Dungari a Kalim s (Ayod 4	MADOBA D PLANT, ARKHAN 20.07.202 apokhar) o F & J sti handir Ihya Nag	ri)	e: 17.05.2		3
	• Test			: Co Iro So FI Ar Ho Al	olour, Od on, Chlor olids, Cal uoride, P rsenic, C exavalent uminium	our, Tas ide, Res cium, Co henolic yanide, I t Chrom & Boro	Compour Lead, Zind	dity, pH, orine, T anganes nd, Merc c, Total (otal Diss se, Sulph cury, Cad Coliform,	olved ate, Nitrate, mium,	
SI. No	Test PARAME-TERS OF TEST	O KO		: Co In So FI An He Al <u>TES</u> VALUE	olour, Od on, Chlor olids, Cal uoride, P rsenic, C exavalen uminium T RESU	our, Tas ide, Res cium, Co henolic yanide, I t Chrom & Boro LT	ste, Turbid . Free chl opper, M Compour Lead, Zinn nium, Minn on.	dity, pH, orine, T anganes nd, Merc c, Total (eral Oil, IS as 1050	otal Diss se, Sulph: cury, Cad Coliform, Alkalinity per IS 0:1991	olved ate, Nitrate, mium,	Ĭ
	PARAME-TERS	Purnadih (Jorapok har)	Digwadih 10 No F&J	: Co Ind So FI An He Al TES	olour, Od on, Chlor olids, Cal uoride, P rsenic, C exavalent uminium	our, Tas ide, Res cium, Co henolic yanide, I t Chrom & Boro	ete, Turbid . Free chl opper, M Compour Lead, Zind ium, Mindon 6&7 Pits (Ayodh ya	dity, pH, orine, To anganes nd, Merc c, Total eral Oil, IS as	otal Disse se, Sulphi cury, Cadi Coliform, Alkalinity per IS	olved ate, Nitrate, mium, /, Test	Y
No	PARAME-TERS OF TEST Colour, (Hazen Unit)	Purnadih (Jorapok har) 2	Digwadih	: Cd Ird Sc FI An He Al <u>TES</u> VALUE Kenduadi h Basti	olour, Od on, Chlor olids, Cal uoride, P rsenic, C exavaleni uminium T RESU Upper Dunga	our, Tas ide, Res cium, Cd henolic yanide, I t Chrom & Bord LT Kalim ela Kalim	ete, Turbie . Free chil opper, M Compour Lead, Zind nium, Mindon 6&7 Pits (Ayodh	dity, pH, orine, T anganes nd, Merc c, Total (eral Oil, IS as 10500 Desir-	otal Disse se, Sulpha cury, Cadi Coliform, Alkalinity per IS 0:1991 Permi-	olved ate, Nitrate, mium, /, Test	
1.	PARAME-TERS OF TEST Colour, (Hazen Unit) Temperature ⁸ C	Purnadih (Jorapok har) 2 29	Digwadih 10 No F&J 2 30	: Cd Ird Sd FI An He Al TES VALUE Kenduadi h Basti	olour, Od on, Chlor olids, Cal uoride, P rsenic, C exavalent uminium T RESU Upper Dunga ri 1 28	our, Tas ide, Res cium, Co henolic yanide, I t Chrom & Boro LT Kalim ela Kalim andir 1 29	ete, Turbid . Free chil opper, M Compour Lead, Zinn nium, Minn nium, Minn, Minnn, Minn, M	dity, pH, orine, T anganes nd, Merc c, Total (eral Oil, IS as 10500 Desir- able	otal Disse se, Sulphi cury, Cadi Coliform, Alkalinity per IS 0:1991 Permi- ssible	olved ate, Nitrate, mium, /, Test Method • IS 3025 (P-	Y
10 1. 2. 3.	Colour, (Hazen Unit) Temperature ⁸ C Electrical Conductivity, µmhos/cm	Purnadih (Jorapok har) 2 29 1140	Digwadih 10 No F&J 2 30 1107	: Cd Ird Sc Fi An Hi Al TES VALUE Kenduadi h Basti 1 30 780	olour, Od on, Chlor olids, Cal uoride, P rsenic, Cy exavaleni uminium T RESU Upper Dunga ri 1 28 880	our, Tas ide, Res cium, Ca henolic yanide, I t Chrom & Borc LT Kalim ela Kalim andir 1 29 950	ete, Turbie . Free chil opper, M Compour Lead, Zinc ium, Mincon 6&7 Pits (Ayodh ya Nagri) 2 29 860	dity, pH, orine, T- anganes nd, Merci c, Total (eral Oil, IS as 10500 Desir- able 5 -	otal Disse se, Sulphi cury, Cadi Coliform, Alkalinity per IS 0:1991 Permi- ssible 15 -	olved ate, Nitrate, mium, /, /, /, Test Method ! S 3025 (P- 4):2021	
No 1. 2. 3.	PARAME-TERS OF TEST Colour, (Hazen Unit) Temperature ⁶ C Electrical Conductivity, µmhos/cm Total Dissolved Solids, mg/l	Purnadih (Jorapok har) 2 29 1140 740	Digwadih 10 No F&J 2 30 1107 720	: Cd Ird Sc Fi An Hi Al TES VALUE Kenduadi h Basti 1 30 780 508	olour, Od on, Chlor olids, Cal uoride, P rsenic, C exavalent uminium T RESU Upper Dunga ri 1 28 880 570	our, Tas ide, Res cium, Ca henolic yanide, I t Chrom & Boro LT Kalim ela Kalim andir 1 29 950 620	ete, Turbid . Free chil opper, M Compour Lead, Zind ium, Mindon 6&7 Pits (Ayodh ya Nagri) 2 29 860 560	dity, pH, orine, T- anganes nd, Merci c, Total 0 eral Oil, IS as 10500 Desir- able 5 - - 500	otal Disse se, Sulphi cury, Cadi Coliform, Alkalinity per IS 0:1991 Permi- ssible 15	olved ate, Nitrate, mium, /, Test Method IS 3025 (P- 4):2021	
No 1. 2. 3.	Colour, (Hazen Unit) Temperature [®] C Electrical Conductivity, µmhos/cm Total Dissolved	Purnadih (Jorapok har) 2 29 1140	Digwadih 10 No F&J 2 30 1107 720 7.5	: Cd Ird Sc Fi An Hi Al TES VALUE Kenduadi h Basti 1 30 780	olour, Od on, Chlor olids, Cal uoride, P rsenic, Cy exavaleni uminium T RESU Upper Dunga ri 1 28 880	our, Tas ide, Res cium, Ca henolic yanide, I t Chrom & Borc LT Kalim ela Kalim andir 1 29 950	ete, Turbie . Free chil opper, M Compour Lead, Zinc ium, Mincon 6&7 Pits (Ayodh ya Nagri) 2 29 860	dity, pH, orine, T- anganess nd, Merci c, Total 0 eral Oil, IS as 10500 Desir- able 5 - 500 6.5-	otal Disse se, Sulphi cury, Cadi Coliform, Alkalinity per IS 0:1991 Permi- ssible 15 -	olved ate, Nitrate, mium, /, Test Method IS 3025 (P- 4):2021	Y
No 1. 2. 3. 4. 5.	PARAME-TERS OF TEST OF TEST Colour, (Hazen Unit) Temperature [®] C Electrical Conductivity, µmhos/cm Total Dissolved Solids, mg/l pH Total Hardness as CaCO ₃ , mg/l	Purnadih (Jorapok har) 2 29 1140 740 7.7 580	Digwadih 10 No F&J 2 30 1107 720 7.5 472	: Co Iro So Fi An He Al TES VALUE Kenduadi h Basti 1 30 780 508 7.7 356	olour, Od on, Chlor olids, Cal uoride, P rsenic, C exavalent uminium T RESU Upper Dunga ri 1 28 880 570 7.5 336	our, Tas ide, Res cium, Ca henolic yanide, I t Chrom & Boro LT Kalim ela Kalim andir 1 29 950 620 7.1 304	ste, Turbid . Free chil opper, M Compour Lead, Zinn ium, Minnon, 6&7 Pits (Ayodh ya Nagri) 2 29 860 560 7.9 392	dity, pH, orine, T, anganes and, Merc c, Total (eral Oil, IS as 10500 Desir- able 5 - 500 6.5- 8.5 200	otal Disse se, Sulphi cury, Cadi Coliform, Alkalinity per IS 0:1991 Permi- ssible 15 - 2000 No Relax 600	olved ate, Nitrate, mium, /, Test Method IS 3025 (P- 4):2021	
No 1. 2. 3. 4. 5. 6. 7,	PARAME-TERS OF TEST OF TEST Colour, (Hazen Unit) Temperature ⁸ C Electrical Conductivity, μmhos/cm Total Dissolved Solids, mg/l pH Total Hardness as CaCO ₃ , mg/l Calcium as Ca, mg/l	Purnadih (Jorapok har) 2 29 1140 740 7.7 580 150.4	Digwadih 10 No F&J 2 30 1107 720 7.5 472 161.6	: C4 Ird S6 FI A4 H6 A1 <u>TES</u> VALUE Kenduadi h Basti 1 30 780 508 7.7 356 57.6	olour, Od on, Chlor olids, Cal uoride, P rsenic, Cy exavalent uminium T RESU Upper Dunga ri 1 28 880 570 7.5 336 60.8	our, Tas ide, Res cium, Ca henolic yanide, I t Chrom & Boro LT Kalim ela Kalim andir 1 29 950 620 7.1 304 56	ste, Turbic . Free chil opper, M Compour Lead, Zinn ium, Minnon, 6&7 Pits (Ayodh ya Nagri) 2 29 860 560 7.9 392 70.4	dity, pH, orine, T- anganess nd, Merci c, Total 0 eral Oil, IS as 10500 Desir- able 5 - - 500 6.5- 8.5	otal Disse se, Sulpha cury, Cadi Coliform, Alkalinity per IS 0:1991 Permi- ssible 15 - - 2000 No Relax	olved ate, Nitrate, mium, /, Test Method IS 3025 (P- 4):2021	
No 1. 2. 3. 4. 5. 6. 7. 8.	PARAME-TERS OF TEST OF TEST Colour, (Hazen Unit) Temperature ⁶ C Electrical Conductivity, µmhos/cm Total Dissolved Solids, mg/l pH Total Hardness as CaCO ₃ , mg/l Calcium as Ca, mg/l Magnesium as Mg, mg/l	Purnadih (Jorapok har) 2 29 1140 740 7.7 580 150.4 48.96	Digwadih 10 No F&J 2 30 1107 720 7.5 472	: Co Iro So Fi An He Al TES VALUE Kenduadi h Basti 1 30 780 508 7.7 356	olour, Od on, Chlor olids, Cal uoride, P rsenic, C exavalent uminium T RESU Upper Dunga ri 1 28 880 570 7.5 336	our, Tas ide, Res cium, Ca henolic yanide, I t Chrom & Boro LT Kalim ela Kalim andir 1 29 950 620 7.1 304	ste, Turbid . Free chil opper, M Compour Lead, Zinn ium, Minnon, 6&7 Pits (Ayodh ya Nagri) 2 29 860 560 7.9 392	dity, pH, orine, T, anganes and, Merc c, Total (eral Oil, IS as 10500 Desir- able 5 - 500 6.5- 8.5 200	otal Disse se, Sulphi cury, Cadi Coliform, Alkalinity per IS 0:1991 Permi- ssible 15 - 2000 No Relax 600	olved ate, Nitrate, mium, /, Test Method IS 3025 (P- 4):2021	
	PARAME-TERS OF TEST OF TEST Colour, (Hazen Unit) Temperature ⁶ C Electrical Conductivity, µmhos/cm Total Dissolved Solids, mg/l pH Total Hardness as CaCO ₃ , mg/l Calcium as Ca, mg/l Magnesium as	Purnadih (Jorapok har) 2 29 1140 740 7.7 580 150.4	Digwadih 10 No F&J 2 30 1107 720 7.5 472 161.6	: C4 Ird S6 FI A4 H6 A1 TES VALUE Kenduadi h Basti 1 30 780 508 7.7 356 57.6	olour, Od on, Chlor olids, Cal uoride, P rsenic, Cy exavalent uminium T RESU Upper Dunga ri 1 28 880 570 7.5 336 60.8	our, Tas ide, Res cium, Ca henolic yanide, I t Chrom & Boro LT Kalim ela Kalim andir 1 29 950 620 7.1 304 56	ste, Turbic . Free chil opper, M Compour Lead, Zinn ium, Minnon, 6&7 Pits (Ayodh ya Nagri) 2 29 860 560 7.9 392 70.4	dity, pH, orine, T4 anganes nd, Merc c, Total (eral Oil, IS as 10500 Desir- able 5 - - 500 6.5- 8.5 200 75	otal Disse se, Sulphi cury, Cadi Coliform, Alkalinity per IS 0:1991 Permi- ssible 15 - 2000 No Relax 600 200	olved ate, Nitrate, mium, /, / / / / / / / / / / / / / / / / /	

Statements :

1. The test report refers only to the particular item(s) submitted for testing.

2. The test results reported in this report are valid at the time of and under the stated condition of measurment.

2

Annexure- II



ADITI R&D SERVICES

Testing Laboratory

NABL ACCREDITED

(A Constituent Board of Quality Council of India) ISO/IEC 17025:2017, ISO 9001:2015,ISO (OHSAS) 45001:2018 Certified Plot No. - I-B-17 (P) Sindri, Industrial Area, P.O.- Domgarh, Dist. - Dhanbad Jharkhand - 828107 Email ID: sindriaditi@gmail.com Website: aditirndservices.com Phone: 0326-2952377 (O), Fax: 0326-2952377 Mobile: 09471358492, 09431512608

SI. No	PARAMETERS OF TEST			VALUE					per IS 0:1991	Test Method
10		Purnadih (Jorapok har)	Digwadih 10 No F&J	Kenduadih Basti	Upper Dungari	Kalim ela Kalim andir	6&7 Pits (Ayo dhya Nagr i)	Desir - able	Permis -sible	2
11	Sulphate as SO ₄ , mg/l	52.8	63.6	65.2	62.8	59.98	49.9 8	200	400	IS 3025(P- 24):1986
12.	Nitrate as NO ₃ , mg/l	9.6	9.2	9.7	8.3	11.9	9.0	45	No. Relax	IS 3025(P- 34):1988
13.	Alkalinity as CaCO ₃ , mg/l,	456	427.2	345.6	441.6	374.4	432	200	600	IS 3025(P- 23):1983
14.	Lead as Pb, mg/l	B.D.L	B.D.L	B.D.L	B.D.L.	BD.L	BDL	0.01	No. Relax	IS 3025(P- 47):1994
15.	Zinc as Zn, mg/l,	0.28	0.18	0.20	0.22	0.32	0.24	5	15	IS 3025(P- 42):1992
16.	Iron a Fe, mg/l	0.2	0.24	0.29	0.28	0.26	0.14	1.0	No. Relax	IS 3025(P- 53):2003
17.	Copper as Cu, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	BDL	BDL	0.05	1.5	IS3025 (P- 42):1992
18.	Mercury as Hg, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	BDL	BDL	0.001	No. Relax	IS 3025(P- 48):1994
19.	Cadmium as Cd, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	BDL	BDL	0.003	No. Relax	 IS 3025(P- 41):1992
20.	Nickel as Ni, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	BDL	B.D.	0.02	No. Relax	IS 3025(P- 37):1992
21.	Arsenic as As, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.	B.D.	0.01	No. Relax	IS 3025(P- 37):1988
22.	Cyanide as CN, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.	B.D.	0.05	No. Relax	IS 3025(P- 27):1986
23.	Total Chromium as Cr, mg/l	B.D.L	B.D.L	B.D.L	B.D.L	B.D.	B.D.	0.05	No. Relax	IS 3025(P- 52):2003

Sr. Chemist

Aditi R&D Services



Technical Manager Aditi R&D Services, Sindri

Statements :

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2. The test results reported in this report are valid at the time of and under the stated condition of measurment.

S	ADITI R				Plot No I-B-17 (P) Sindri, Industrial Area, P.O Domgarh, Dist - Dhanbi
JA		ing Labora			Iharkhand - 828107
D)		the second s		1	Email ID: sindriaditi@gmail.co Website: aditimdservices.com
ISO/	(A Constituent Bo IEC 17025:2017, ISO 900			ia)	Phone: 0326-2952377 (O) Mobile: 09471358492, 09431
	- ARDS/24-25/AAQ/1				e: 14.08.2024
	TEST RE	PORT OF A	MBIENT AI	R QUALITY	
	-				
● Na	nme of the industry	TATA S	TA STEEL, J TEEL LIMIT OBA GROUI DHANBAD (ED	
• w	ork Order Ref. NO.:	: 4700126	557/932 Date	:- 29/05/2024	
• Da	te of Sample Collectio	on : 07/08/202	4 To 08/08/20	24	
	te of Testing		24 To 13/08/2		
• •	le of resultio	: 10/08/20	24 10 13/00/2		
	st Procedure	: As per IS			
	st Procedure	: As per IS	-5182 RESULTS		
	st Procedure	: AsperIS <u>TEST</u> ION – 6&71	-5182 RESULTS		ity 75%
	st Procedure	: AsperIS <u>TEST</u> ION – 6&71	-5182 RESULTS PITS COLLIE	RY OFFICE Avg. Humid	ity 75%
• Te	st Procedure LOCAT Avg. Ambient Te	: As per IS <u>TEST</u> ION - 6 & 7 I mperature	-5182 RESULTS PITS COLLIE 32ºC	RY OFFICE Avg. Humid NAAQ - CPC	
• Te	LOCAT Avg. Ambient Te Particulars	: As per IS <u>TEST</u> ION – 6 & 7 I mperature I ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 32ºC Value	RY OFFICE Avg. Humid NAAQ - CPC 100	BSTANDARD
• Te SI No. 1.	LOCAT Avg. Ambient Te Particulars Particulate Matter (PM	: As per IS <u>TEST</u> ION – 6 & 7 I mperature I ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 32ºC Value 76.72	RY OFFICE Avg. Humid NAAQ - CPC 100 60	EB STANDARD μg/m ³
• Te SI No. 1. 2.	LOCAT Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM	: As per IS <u>TEST</u> ION – 6 & 7 I mperature I ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 32°C Value 76.72 44.61	RY OFFICE Avg. Humid NAAQ - CPC 100 60 80	CB STANDARD μg/m ³ μg/m ^{3**}
• Te SI No. 1. 2. 3.	LOCAT Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³	: As per IS <u>TEST</u> ION – 6 & 7 I mperature I ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 32°C Value 76.72 44.61 17.13	RY OFFICE Avg. Humid NAAQ - CPC 100 60 80 80	EB STANDARD μg/m ³ μg/m ³ μg/m ³
• Te SI No. 1. 2. 3. 4.	LOCAT Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³	: As per IS <u>TEST</u> ION – 6 & 7 I mperature I ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 32°C Value 76.72 44.61 17.13 25.66	RY OFFICE Avg. Humid NAAQ - CPC 100 60 80 80 180	EB STANDARD µg/m ³ µg/m ³ µg/m ³ µg/m ³
• Te SI No. 1. 2. 3. 4. 5.	LOCAT Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³	: As per IS <u>TEST</u> ION – 6 & 7 I mperature I ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 32°C Value 76.72 44.61 17.13 25.66 15.24	RY OFFICE Avg. Humid NAAQ - CPC 100 60 80 80 180 400	EB STANDARD µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³
• Te SI No. 1. 2. 3. 4. 5. 6.	LOCAT Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³ NH ₃ , µg/m ³	: As per IS <u>TEST</u> ION – 6 & 7 I mperature I ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 32°C Value 76.72 44.61 17.13 25.66 15.24 14.10	RY OFFICE Avg. Humid NAAQ - CPC 100 60 80 80 180 400 4 n	EB STANDARD µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³
• Te SI No. 1. 2. 3. 4. 5. 6. 7.	LOCAT Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³	: As per IS <u>TEST</u> ION – 6 & 7 I mperature I ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 32°C Value 76.72 44.61 17.13 25.66 15.24 14.10 0.77	RY OFFICE Avg. Humid NAAQ - CPC 100 60 80 80 180 400 41 1	EB STANDARD µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³
• Te SI No. 1. 2. 3. 4. 5. 6. 7. 8.	LOCAT Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³	: As per IS <u>TEST</u> ION – 6 & 7 I mperature I ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 32°C Value 76.72 44.61 17.13 25.66 15.24 14.10 0.77 BDL	RY OFFICE Avg. Humid NAAQ - CPC 100 60 80 80 180 400 4 n 1 µ 6 r	EB STANDARD µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³
• Te SI No. 1. 2. 3. 4. 5. 6. 7. 8. 9.	LOCAT Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³ As, ng/m ³	: As per IS <u>TEST</u> ION – 6 & 7 I mperature I ₁₀), µg/m ³	-5182 RESULTS PITS COLLIE 32°C Value 76.72 44.61 17.13 25.66 15.24 14.10 0.77 BDL BDL	RY OFFICE Avg. Humid NAAQ - CPC 100 60 80 80 180 400 400 4 n 1 µ 6 r 20	EB STANDARD µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³ µg/m ³ ng/m ³ ng/m ³

Technical Manager Aditi R&D Services, Sindri

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DS		& D SE ing Labora BL ACCREDIT	tory	ES	Plot No I-8-1 Sindri, Industria P.O Domgarh, Jharkhand - 82 Email ID: sindri	I Area, Dist - Dhanbac 8107 aditi@gmail.cor
ISO/	(A Constituent Bo IEC 17025:2017, ISO 900	and the second se		and the second se	Website aditim Phone 0326-29 Mobile: 094713	952377 (O)
Ref. No.:	- ARDS/24-25/ AAQ/2			Dat	e: 14.08.202	24
	TEST RE	PORT OF A	MBIENT AI	R QUALITY		
• Na	nme of the industry	TATA S	TA STEEL, J TEEL LIMITI OBA GROUI DHANBAD (J	ED		
• W	ork Order Ref. NO.:	: 4700126	557/932 Date	:- 29/05/2024		
• Da	te of Sample Collectio	on : 08.08.202	4 to 09.08.2	024		
	te of Testing		24 to 13.08.2			
	st Procedure	: As per IS				
	139		RESULTS			
		TEST	RESULTS	NO. DIGWADIH		
		TEST	RESULTS	NO. DIGWADIH Avg. Humid		5%
SI No.	LOCATION	TEST	RESULTS COLONY, 12	Avg. Humi		- 20 D C C C
SI No. 1.	LOCATION Avg. Ambient Te	TEST	RESULTS COLONY, 12 32 ⁰ C	Avg. Humid	dity 7	- 20 D C C C
	LOCATION Avg. Ambient Te Particulars	<u>TEST</u>	RESULTS COLONY, 12 32ºC Value	Avg. Humid NAAQ - CP 100	dity 7 CB STANDA	- 20 D C C C
1.	LOCATION Avg. Ambient Te Particulars Particulate Matter (PM	<u>TEST</u>	RESULTS COLONY, 12 32 ⁰ C Value 70.35	Avg. Humid NAAQ - CP 100 60	dity 7 CB STANDA 0 µg/m³	
1. 2.	LOCATION Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM	<u>TEST</u>	RESULTS COLONY, 12 32°C Value 70.35 39.28	Avg. Humid NAAQ - CP 100 60 80	dity 7 CB STANDA Dµg/m ³ Pµg/m ³	- 20 D C C C
1. 2. 3. 4. 5.	LOCATION Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³	<u>TEST</u>	RESULTS COLONY, 12 32°C Value 70.35 39.28 18.14	Avg. Humid NAAQ - CP 100 60 80 80	dity 7 CB STANDA 0 µg/m ³ 0 µg/m ³ 0 µg/m ³	
1. 2. 3. 4.	LOCATION Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³	<u>TEST</u>	RESULTS COLONY, 12 32°C Value 70.35 39.28 18.14 29.13	Avg. Humid NAAQ - CP 100 60 80 80 80	dity 7 CB STANDA 0 µg/m ³ 0 µg/m ³ 0 µg/m ³	
1. 2. 3. 4. 5.	LOCATION Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³	<u>TEST</u>	RESULTS COLONY, 12 32°C Value 70.35 39.28 18.14 29.13 16.65	Avg. Humid NAAQ - CP 100 60 80 80 180 40	dity 7 CB STANDA 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³	
1. 2. 3. 4. 5. 6.	LOCATION Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³	<u>TEST</u>	RESULTS COLONY, 12 32°C Value 70.35 39.28 18.14 29.13 16.65 14.10	Avg. Humid NAAQ - CP 100 60 80 80 180 400 40 4	dity 7 CB STANDA 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³	
1. 2. 3. 4. 5. 6. 7.	LOCATION Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³ NO ₂ , µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³	<u>TEST</u>	RESULTS COLONY, 12 32°C Value 70.35 39.28 18.14 29.13 16.65 14.10 0.40	Avg. Humid NAAQ - CP 100 60 80 80 180 400 4	dity 7 CB STANDA 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³	
1. 2. 3. 4. 5. 6. 7. 8.	LOCATION Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³	<u>TEST</u>	RESULTS COLONY, 12 32°C Value 70.35 39.28 18.14 29.13 16.65 14.10 0.40 BDL	Avg. Humid NAAQ - CP0 100 60 80 80 180 400 40 40 40 6	dity 7 CB STANDA 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ mg/m ³ µg/m ³	
1. 2. 3. 4. 5. 6. 7. 8. 9.	LOCATION Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³ As, ng/m ³	<u>TEST</u>	RESULTS COLONY, 12 32°C Value 70.35 39.28 18.14 29.13 16.65 14.10 0.40 BDL BDL	Avg. Humid NAAQ - CP 100 60 80 80 180 400 41 1 6 20	dity 7 CB STANDA 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ mg/m ³ µg/m ³ ng/m ³	

Sr. Chemist Aditi R&D Services



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Technical Manager Aditi R&D Services, Sindri

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R D S			ing Labora	tory ED		Plot No I-B-17 (P) Sindri, Industrial Area, P.O Domgarh, Dist - Dhanba Jharkhand - 828107 Email ID: sindriadit@gmail.co Website: aditirndservices.com
	ISO/I	EC 17025:2017, ISO 90				Phone: 0326-2952377 (O) Mobile: 09471358492, 09431
Re	ef. No.: -	ARDS/24-25/ AAQ/3			Da	te: 14.08.2024
		TEST RE	PORT OF A	MBIENT AI	R QUALITY	
•	Nar	me of the industry	TATA S	TEEL LIMITI OBA GROUI	19755-0000-20	
:	Dat	ork Order Ref. NO. te of Sample Collectio te of Testing	: 4700126	557/932 Date	:- 29/05/2024 024	
•	Tes	st Procedure	: As per IS	-5182 RESULTS		
Ē						
ļ		LOCATION -			REA , JAMADO	
	CI No.	Avg. Ambient Te		32ºC	Avg. Hum	idity 75%
	SI No.	Avg. Ambient Te Particulars	mperature	32ºC Value	Avg. Hum NAAQ - CF	idity 75% PCB STANDARD
	1.	Avg. Ambient Te Particulars Particulate Matter (PM	mperature M10), μg/m ³	32ºC Value 76.48	Avg. Hum NAAQ - CF 10	idity 75% PCB STANDARD 00 μg/m ³
	1. 2.	Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM	mperature M10), μg/m ³	32°C Value 76.48 50.14	Avg. Hum NAAQ - CF 10 6	idity 75% PCB STANDARD 00 μg/m ³ 0 μg/m ³
	1. 2. 3.	Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³	mperature M10), μg/m ³	32°C Value 76.48 50.14 14.90	Avg. Hum NAAQ - CF 10 6 8	idity 75% PCB STANDARD 00 μg/m ³ 0 μg/m ³ 0 μg/m ³
	1. 2. 3. 4.	Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³	mperature M10), μg/m ³	32°C Value 76.48 50.14 14.90 23.25	Avg. Hum NAAQ - CF 10 6 8 8	idity 75% PCB STANDARD 00 μg/m ³ 0 μg/m ³ 0 μg/m ³
	1. 2. 3.	Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³	mperature M10), μg/m ³	32°C Value 76.48 50.14 14.90 23.25 16.38	Avg. Hum NAAQ - CF 10 6 8 8 8	idity 75% PCB STANDARD 00 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³
	1. 2. 3. 4. 5.	Avg. Ambient Te Particulars Particulate Matter (PM Particulate Matter (PM SO ₂ , µg/m ³ NO ₂ , µg/m ³	mperature M10), μg/m ³	32°C Value 76.48 50.14 14.90 23.25	Avg. Hum NAAQ - CF 10 6 8 8 8 11 12 40	idity 75% PCB STANDARD 00 μg/m ³ 0 μg/m ³ 0 μg/m ³

12. Benzoapyrene ng/m³ NOTE: BDL - Below Detection Limit

Benzene, µg/m3

As, ng/m³

Ni, ng/m³

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11.

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BDL

BDL

BDL

BDL

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6 ng/m³

20 ng/m³

5 µg/m³

1 ng/m³

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S .		ng Laborat	tory ED		Jharkhand - Email ID sir Website: ad	strial Area, iarh, Dist - Dhanbad - 828107 ndriaditi@gmail.com itirndservices.com
ISO/I	EC 17025:2017, ISO 9001	ADDRESS OF THE PARTY OF THE PARTY OF		Card Contractor and Contractor and Contractor		6-2952377 (O) 71358492, 0943151260
Ref. No.:	ARDS/24-25/ AAQ/4			Da	ite: 14.08.2	2024
	TEST REF	PORT OF A	MBIENT AI	R QUALITY		
Wa	me of the industry ork Order Ref. NO.: te of Sample Collection	TATA S1 JAMADO DIST D : 47001265	TEEL LIMITE DBA GROUE DHANBAD (. 557/932 Date	P PLANT, JHARKHAND :- 29/05/2024)	
	te of Testing st Procedure LOCATI	: As per IS-	RESULTS			
	st Procedure	: As per IS TEST F ON – TATA	-5182 RESULTS		idity	75%
	st Procedure	: As per IS TEST F ON – TATA	-5182 RESULTS CENTRAL H	IOSPITAL	1012220	. 1 Par 65/
Te	t Procedure LOCATI Avg. Ambient Tem	: As per IS- TEST F ON – TATA operature	-5182 RESULTS CENTRAL H 32ºC	HOSPITAL Avg. Hum NAAQ - CP	1012220	. 1 Par 65/
Te: SI No.	LOCATI Avg. Ambient Tem Particulars	: As per IS- TEST F ON – TATA perature), µg/m ³	-5182 RESULTS CENTRAL H 32ºC Value	IOSPITAL Avg. Hum NAAQ - CF 10	CB STAN	. 1 Par 65/
Te: SI No. 1.	LOCATI Avg. Ambient Tem Particulars Particulate Matter (PM10	: As per IS- TEST F ON – TATA perature), µg/m ³	-5182 RESULTS CENTRAL H 32°C Value 64.06	HOSPITAL Avg. Hum NAAQ - CP 10 6	PCB STAN 00 µg/m ³	. 1 Par 65/
Te: SI No. 1. 2.	LOCATI Avg. Ambient Tem Particulars Particulate Matter (PM10 Particulate Matter (PM2	: As per IS- TEST F ON – TATA perature), µg/m ³	-5182 RESULTS CENTRAL H 32°C Value 64.06 36.38	HOSPITAL Avg. Hum NAAQ - CP 10 6 8	РСВ STAN 00 µg/m ³ 0 µg/m ³	. 1 Par 65/
SI No. 1. 2. 3.	LOCATI Avg. Ambient Tem Particulars Particulate Matter (PM ₂ , SO ₂ , µg/m ³	: As per IS- TEST F ON – TATA perature), µg/m ³	-5182 RESULTS CENTRAL H 32°C Value 64.06 36.38 15.92	HOSPITAL Avg. Hum NAAQ - CP 10 6 8 8	РСВ STAN 00 µg/m ³ 0 µg/m ³ 0 µg/m ³	. 1 Par 65/
Tes SI No. 1. 2. 3. 4.	LOCATI Avg. Ambient Tem Particulars Particulate Matter (PM ₁₀ Particulate Matter (PM ₂ SO ₂ , µg/m ³	: As per IS- TEST F ON – TATA perature), µg/m ³	-5182 RESULTS CENTRAL H 32°C Value 64.06 36.38 15.92 23.07	IOSPITAL Avg. Hum NAAQ - CF 10 6 8 8 8	РСВ STAN 00 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³	. 1 Par 65/
Tes SI No. 1. 2. 3. 4. 5.	LOCATI Avg. Ambient Tem Particulars Particulate Matter (PM ₁₀ Particulate Matter (PM ₂ . SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³	: As per IS- TEST F ON – TATA perature), µg/m ³	-5182 RESULTS CENTRAL H 32°C Value 64.06 36.38 15.92 23.07 14.36	HOSPITAL Avg. Hum NAAQ - CP 10 6 8 8 8 18 18	PCB STAN 00 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³	. 1 Par 65/
Tes SI No. 1. 2. 3. 4. 5. 6.	LOCATI Avg. Ambient Tem Particulars Particulate Matter (PM ₁₀ Particulate Matter (PM ₂ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³	: As per IS- TEST F ON – TATA perature), µg/m ³	-5182 RESULTS CENTRAL H 32°C Value 64.06 36.38 15.92 23.07 14.36 13.98	HOSPITAL Avg. Hum NAAQ - CP 10 6 8 8 8 18 40 40 4	РСВ STAN 20 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 30 µg/m ³ 20 µg/m ³	. 1 Par 65/
Tes SI No. 1. 2. 3. 4. 5. 6. 7.	LOCATI Avg. Ambient Tem Particulars Particulate Matter (PM ₁₀ Particulate Matter (PM ₂ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³	: As per IS- TEST F ON – TATA perature), µg/m ³	-5182 RESULTS CENTRAL H 32°C Value 64.06 36.38 15.92 23.07 14.36 13.98 0.76	HOSPITAL Avg. Hum NAAQ - CP 10 6 8 8 8 18 40 40 4	PCB STAN 00 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 00 µg/m ³ 00 µg/m ³	. 1 Par 65/
Tes SI No. 1. 2. 3. 4. 5. 6. 7. 8.	LOCATI Avg. Ambient Tem Particulars Particulate Matter (PM ₁₀ Particulate Matter (PM ₂ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³	: As per IS- TEST F ON – TATA perature), µg/m ³	-5182 RESULTS CENTRAL H 32°C Value 64.06 36.38 15.92 23.07 14.36 13.98 0.76 BDL	HOSPITAL Avg. Humi NAAQ - CF 10 6 8 8 8 18 40 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	РСВ STAN 20 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 30 µg/m ³ 20 µg/m ³ 1 mg/m ³ 1 µg/m ³	. 1 Par 65/
Tes SI No. 1. 2. 3. 4. 5. 6. 7. 8. 9.	LOCATI Avg. Ambient Tem Particulars Particulate Matter (PM ₁₀ Particulate Matter (PM ₂ SO ₂ , µg/m ³ NO ₂ , µg/m ³ Ozone, µg/m ³ NH ₃ , µg/m ³ CO, mg/m ³ Pb, µg/m ³ As, ng/m ³	: As per IS- TEST F ON – TATA perature), µg/m ³	-5182 RESULTS CENTRAL H 32°C Value 64.06 36.38 15.92 23.07 14.36 13.98 0.76 BDL BDL	HOSPITAL Avg. Hum NAAQ - CP 10 6 8 8 8 18 40 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	PCB STAN 20 µg/m ³ 0 µg/m ³ 0 µg/m ³ 0 µg/m ³ 30 µg/m ³ 30 µg/m ³ 1 mg/m ³ 1 mg/m ³ 1 µg/m ³	. 1 Par 65/

NOTE: BDL - Below Detection Limi

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	(A C ISO/IEC 17025	Constitu	NAB ent Boa		REDI	TED Count	cil of l		Jharkhand Email ID s Website at Phone 032	garh, Dist - Dhar - 828107 indriaditi@gmail ditirndservices.c 26-2952377 (O) 471358492, 094	
	TEST	REPO	RT OF	NOIS	E (A	MBIE	NT)	LEVEL MC	NITORING		
	Ref. No	. & Date	,	1			NAME	AND ADDRES	SS OF THE CLI	ENT	
AR	DS/24-25/NOISI	E/1Date	: 14.08	.2024			M/S	TATA STEE	L, JAMADOB	A,	
	Date of N	Ionitori	ng		ТА	TA ST			MADOBA GR) (JHARKHAN		
	07.08.2024 1	Го 09.08	3.2024	-	Ar Tem	Avg. nbient peratu (°C)		Average Humidity (%)	Weather Condition	Status of the plant	
	Work Order 4 Date:- 2	7001265				32		75	Clear	Running	
		1.4		MO	NITO	RING	RESU	ILTS			
SI. No	Place of Monitoring	(Day Ti 6 AM to Avg. d	10 PM)			(10 PM	t Time to 6 AM) dB(A)	for Industr CPCB No (Regulatio (Amendme notified vio Dt. 2	el (Ambient standar ustrial Area as per Noise Pollution ation and Control) Iment) Rules, 2000 I vide S.O. 1046(E) t. 22.11.2020 it in dB(A) Leq	
			_	_					Day Time	Night Time	
JAN	LOCATION MADOBA GROUP	MAX	MIN	AVG. d		MAX	MIN	AVERAGE dB(A) Leq	Industrial Area	Industria Area	
1.	Central Workshop Area	70.4	60.8	67.8	34	58.4	47.3	55.71	75	70	
2.	6 & 7 Pits Colliery Office	68.7	55.2	65.8	38	56.8	46.5	54.18		6.63	
						_			Residential Area	Residentia Area	
3.	Officer Colony 12 No. Digwadih	63.9	50.6	61.0)9	51.2	40.8	48.57	65	55	
									Silence Zone	Silence Zone	
4.	Tata Central Hospital	50.5	46.7	49.0	00	39.6	36.4	38.29	50	40	
,	Sr. Chemis				(LI P.I. DOMO	ARH C		Jack Technical Ma R&D Service		

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	Test NA (A Constituent B	&D SERVICES ing Laboratory BL ACCREDITED oard of Quality Council of India) 01:2015,ISO (OHSAS) 45001:2018 Certified	Piot No I-B-17 (P) Sindri, Industrial Area, P.O Domgarh, Dist - Dhanbad Jharkhand - 828107 Email ID: sindriaditi@gmail.com Website: aditimdservices.com Phone: 0326-2952377 (O) Mobile: 09471358492, 09431512608
Ref.	No.: - ARDS/24-25/MINER./	1 C)ate: 14.08.2024
	TEST REPOR	T OF MINERALOGICAL COMPOSI	TION
	2	OF PARTICULATE MATTER	
•	Name of the industry	: M/S TATA STEEL, JAMADOBA, TATA STEEL LIMITED JAMADOBA GROUP PLANT,	
		DIST DHANBAD (JHARKHANI	D)
•	Work Order Ref. NO.	: 4700126557/932 Date:- 29/05/2024	
	Date of Sample Collection	on : 09.08.2024	
•	Date of Testing	: 12.08.2024 To 14.08.2024	
		TEST RESULTS	

SI No.	Particulars	Mineralogical Composition (%)					
		SiO ₂	FeO	Al ₂ O ₃	CaO		
1.	6 & 7 pits colliery office	1.98	0.14	1.38	2.68		
2.	Tata Central Hospital	2.16	0.18	1.34	2.84		

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DS	ADITI R&D Testing La NABL ACC (A Constituent Board of (ISO/IEC 17025:2017, ISO 9001:2015,	aboratory REDITED Quality Coun	cil of India)	P.O Jhan Ema Web Phon	No I-8-17 (P) 1. Industrial Area, Doingarh, Dist - Dhanbad (hand - 828107 I ID: sindriaditi/@gmail.con site: aditimdservices.com e: 0326-2952377 (O) fe: 09471358492, 0943151
Ref.	No.: - ARDS/24-25/SW/1			Date: 1	7.08.2024
	TEST REPOR	RT OF SU	RFACE W	ATER	
:	T, J,	ATA STEEI AMADOBA IST DHAN 4700126 1. Damo	GROUP PL NBAD (JHA 557/932 Dat odar River L	ANT, RKHAND) e:- 29/05/2024 Jp Stream	
•		09.08.20 10 08.20 pH, TDS <u>TEST RES</u>	024 024 To 16.00 5, Turbidity, <u>ULT</u>	DO, BOD, CI,	
SI. No.	Date of Testing : Test :	09.08.20 10 08.20 pH, TDS <u>TEST RES</u>	024 024 To 16.00 5, Turbidity,	8.2024	F, SO₄ Test Method
0.000	Date of Testing : Test :	09.08.20 10 08.20 pH, TDS <u>TEST RES</u> VAI Damodar River Up	024 To 16.03 5, Turbidity, ULT LUE Damodar River Dn	B.2024 DO, BOD, CI, Limit as per IS 2296	Test Method
No.	Date of Testing : Test : PARAMETERS OF TEST	09.08.20 10 08.20 pH, TDS <u>TEST RES</u> VAI Damodar River Up Stream	024 To 16.03 5, Turbidity, ULT LUE Damodar River Dn Stream	B.2024 DO, BOD, CI, Limit as per IS 2296 Class - C	Test Method IS-3025 (P-11): 1983
No. 1.	Date of Testing : Test : PARAMETERS OF TEST pH	09.08.20 10 08.20 pH, TDS TEST RES VAI Damodar River Up Stream 7.6	024 To 16.03 5, Turbidity, ULT LUE Damodar River Dn Stream 7.6	8.2024 DO, BOD, CI, Limit as per IS 2296 Class - C 6.5 -8.5	Test Method IS-3025 (P-11): 1983 IS-3025 (P-16): 1984
No. 1. 2.	Date of Testing : Test : PARAMETERS OF TEST PH Total Dissolved Solids, mg/l	09.08.20 10 08.20 pH, TDS <u>TEST RES</u> VAI Damodar River Up Stream 7.6 397	024 D24 To 16.03 S, Turbidity, ULT LUE Damodar River Dn Stream 7.6 431	8.2024 DO, BOD, CI, Limit as per IS 2296 Class - C 6.5 -8.5 1500	Test Method IS-3025 (P-11): 1983 IS-3025 (P-16): 1984 IS-3025 (P-10):1984
No. 1. 2. 3.	Date of Testing : Test : PARAMETERS OF TEST PH Total Dissolved Solids, mg/l Turbidity, NTU	09.08.20 10 08.20 pH, TDS <u>TEST RES</u> VAI Damodar River Up Stream 7.6 397 5	024 D24 To 16.03 S, Turbidity, ULT LUE Damodar River Dn Stream 7.6 431 5	8.2024 DO, BOD, CI, Limit as per IS 2296 Class - C 6.5 -8.5 1500 -	Test Method IS-3025 (P-11): 1983 IS-3025 (P-16): 1984 IS-3025 (P-10):1984 IS-3025 (P-38):1989
No. 1. 2. 3. 4.	Date of Testing : Test : PARAMETERS OF TEST PH Total Dissolved Solids, mg/l Turbidity, NTU Dissolved Oxygen, mg/l Bio chemical Oxygen	09.08.20 10 08.20 pH, TDS <u>TEST RES</u> VAI Damodar River Up Stream 7.6 397 5 4.8	024 024 To 16.03 5, Turbidity, ULT LUE Damodar River Dn Stream 7.6 431 5 4.9	8.2024 DO, BOD, CI, Limit as per IS 2296 Class - C 6.5 -8.5 1500 - 4.0 (Min)	Test
No. 1. 2. 3. 4. 5.	Date of Testing : Test : PARAMETERS OF TEST PH Total Dissolved Solids, mg/l Dissolved Oxygen, mg/l Bio chemical Oxygen Demand, mg/l	09.08.20 10 08.20 pH, TDS <u>TEST RES</u> VAI Damodar River Up Stream 7.6 397 5 4.8 1.5	024 024 To 16.03 5, Turbidity, ULT LUE Damodar River Dn Stream 7.6 431 5 4.9 3.0	8.2024 DO, BOD, CI, Limit as per IS 2296 Class - C 6.5 -8.5 1500 - 4.0 (Min) 3.0	Test Method IS-3025 (P-11): 1983 IS-3025 (P-16): 1984 IS-3025 (P-10):1984 IS-3025 (P-38):1989 IS-3025 (P-44):1994

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1	D S		ting Labo BL ACCRED loard of Quali	ratory NTED ty Council o	f India)	P J E V P	fot No I-8-17 (P) indri, Industrial Area, O Domgarh, Dist Dhanbad harkhand - 828107 mail ID: sindriaditi@gmail.com Vebsite: aditirndservices.com hone: 0326-2952377 (O) Iobile: 09471358492, 094315126
	Ref. No.: - ARDS/	24-25/MWD/1	l.			Date	: 17.08.2024
	1	TEST REP	ORT OF N	INE WA	TER DIS	CHARG	E
	Name of the second s	ne industry	T J	NS TATA S ATA STEE AMADOBA DIST DHA	A GROUP	D PLANT,	
	 Work Orde 	r Ref. NO.:	: 4	700126557/	932 Date:-	29/05/202	4
	Sample C	ode	: 1 2 3	. 3 Pit	Jamadob Jamadob Pits Colli	a Colliery	
	 Date of Sa Date of Te Test 	ample Collee esting	: 1 : p	7.08.2024 0.08.2024 H, TDS, TS	To 16.08. SS, BOD, 0	2024	& GREASE.
SI.	PARAMETERS OF		VALU	E		Limitas	Test
No.	TEST	2 Pit Jamadoba Colliery	3 Pit Jamadoba Colliery	6 & 7 Pits Colliery	Digwadih Colliery	per IS-2296 Class B (For Bathing)	Method
1.	pH,	8.2	8.3	7.9	8.2	6.5-8.5	IS-3025 (P-11): 1983
2.	Total Dissolved Solids, mg/l	790	770	649	698		IS-3025 (P-16): 1984
3.	Total Suspended Solids, mg/l	30.0	28	24	26	•	IS-3025(P-17) : 1984
4.	Bio chemical Oxygen Demand, mg/l	2.3	3.0	2.8	3.0	3	IS-3025 (P- 44):1994
5.	Chemical Oxygen	122	49	91	79	•	IS-3025 (P- 58):2006

Oil & Grease, mg/l

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0.2

0.2

IS-3025 (P-39):2021

Technical Manager Aditi R&D Services, Sindri

Statements :

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1. The test report refers only to the particular item(s) submitted for testing.

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2. The test results reported in this report are valid at the time of and under the stated condition of measurement.

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1	D S	Test NA Instituent B	&DS ting Labor BL ACCRED loard of Quali 001:2015,ISO	natory DITED Ity Council o	of India)		Plot No I-B-17 Sindri, Industrial / P.O Domgarh, D. Jharkhand - 8281 Email ID sindriad Website: aditirnde Phone: 0326-295 Mobile: 09471358	Area, Dist - Dhanbad D7 diti@gmail.com services.com 2377 (O)
	Ref. No.: - ARDS/24-	25/STP/1				Da	te: 17.08.2024	
		I	EST REPO	RTOF	SEWAG	E		
	 Name of the i Work Order R 		T J C	M/S TATA S ATA STEL AMADOB DIST DHA 700126557	EL LIMITI A GROUI ANBAD (.	ED P PLANT JHARKH	, AND)	
	 Sample Cod Date of Sam Date of Test Test 	ple Colle	2 3 4 5 5 5 5 5 5 7 7 8 7 8 8 8 8 8 9 8 8 8 8 9 8 8 9 8 9	. STP Out . STP Out . STP Out 7.08.2024 0.08.2024 H, TDS, T and Fecal (let -Digw let -Digw let- Jmb. let- JCPF To 09.0 To 16.0 SS, BOD Coliform.	adih 12 M adih 12 M Canteen Canteer 8.2024 8.2024 , COD, O	lo Officers C lo. Superviso	or flat
~	DADAMETERS OF		TES	T RESULT		_		
SI. No.	PARAMETERS OF TEST	STP Outlet Railway Colony	STP Outlet Digwadih 12 No Officers Colony	VALUE STP Outlet Digwadi h 12 No. Supervis or flat	STP Outlet Jmb. Cantee n	STP Outlet- JCPP Cantee n	As per MoEF&CC Notification dated 13 th Oct. 2017 for Sewage Treatment Plant	Test Method
1.	pH,	7.9	7.5	7.4	7.3	7.5	6.5-9.0	IS-3025(P- 11):1983
2.	Total Dissolved Solids, mg/l	939.0	952	791	592	547	•	IS-3025(P- 16):1984
3.	Total Suspended Solids, mg/l	40.0	28.0	30.0	35.0	38.0	100	IS-3025(P- 17):1984
4.	Bio chemical Oxygen *Demand, mg/l	9.0	4.2	3.5	8.0	7.0	30	IS-3025(P- 44):1994
5.	Chemical Oxygen	54.7	36.5	24.3	48.6	42.6	250	IS-3025(P- 58):2006

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Oil & Grease, mg/l

Fecal Coliform (FC)

(MPN/100ml)



0.6

450

0.8

560

0.9

470

.

<1000

MPN/100ml

IS-3025(P-

39):2021

IS - 1622

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Statements :

6.

7.

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1.0

580

2. The test results reported in this report are valid at the time of and under the stated condition of measurement.

0.8

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AD HEA	ADITI R&	D SE	RVIC	CES	Plot No I-B-17 (P) Sindri, Industrial Area,
RD	S · Testin	g Labora	torv		P.O Domgarh, Dist - Dhanbad
-	161	ACCREDIT			Jharkhand - 828107 Email ID: sindriaditi@gmail.com
	(A Constituent Boar	d of Quality	Council of I	ndia)	Website: aditimdservices.com Phone: 0326-2952377 (O)
	ISO/IEC 17025:2017, ISO 9001:	2015,ISO (O	HSAS) 4500	1:2018 Certified	Mobile: 09471358492, 094315126
F	Ref. No.: - ARDS/24-25/ETP/1			D	ate: 17.08.2024
	TEST	REPORT	OF EF	FLUENT	
	Name of the industry	TA JAI	TA STEEL	EEL, JAMADO LIMITED GROUP PLANT IBAD (JHARKH	Γ.
	Work Order Ref. NO.:	: 470	0126557/93	32 Date:- 29/05/2	2024
	Sample Code	: 1.E	T.P. Outl	et T.C.H.	
		2. E	T.P. Outl	et Garage	
		2012-01 No.22207			
	 Date of Sample Collection Date of Testing Test 	: 10. : pH	08.2024 T , TDS, TSS	o 08.08.2024 o 16.08.2024 s, BOD, COD, C	DIL & GREASE.
	Date of TestingTest	: 10. : pH, <u>TEST</u>	08.2024 T , TDS, TSS <u>RESULT</u>	o 16.08.2024 5, BOD, COD, C	
	Date of Testing	: 10. : pH	08.2024 T , TDS, TSS <u>RESULT</u>	General Standard for discharge of Environmental Pollutants, Inland Surface water by the	DIL & GREASE.
o.	Date of TestingTest	: 10. : pH, <u>TEST</u> VAL E.T.P. Outlet	08.2024 T , TDS, TSS <u>RESULT</u> .UE E.T.P. Outlet	General Standard for discharge of Environmental Pollutants, Inland Surface	Test Method
lo. 1.	Date of Testing Test PARAMETERS OF TEST	: 10. : pH <u>TEST</u> VAL E.T.P. Outlet T.C.H.	08.2024 T , TDS, TSS <u>RESULT</u> UE E.T.P. Outlet Garage	General Standard for discharge of Environmental Pollutants, Inland Surface water by the MoEF&C	Test Method
lo. 1. 2.	Date of Testing Test PARAMETERS OF TEST pH,	: 10. : pH <u>TEST</u> VAL E.T.P. Outlet T.C.H. 8.4	08.2024 T , TDS, TSS RESULT UE E.T.P. Outlet Garage	General Standard for discharge of Environmental Pollutants, Inland Surface water by the MoEF&C 5.5-9.0	Test Method
ši. lo. 1. 2. 3.	Date of Testing Test PARAMETERS OF TEST pH, Total Dissolved Solids, mg/l	: 10. : pH <u>TEST</u> VAL E.T.P. Outlet T.C.H. 8.4 589.0	08.2024 T , TDS, TSS RESULT UE E.T.P. Outlet Garage 8.3 842.0	General Standard for discharge of Environmental Pollutants, Inland Surface water by the MoEF&C 5.5-9.0	Test Method IS-3025 (P-11): 1983 IS-3025 (P-16): 1984
lo. 1. 2. 3.	Date of Testing Test PARAMETERS OF TEST pH, Total Dissolved Solids, mg/l Total Suspended Solids, mg/l Bio chemical Oxygen Demand,	: 10. : pH, <u>TEST</u> VAL E.T.P. Outlet T.C.H. 8.4 589.0 22.0	08.2024 T , TDS, TSS RESULT UE E.T.P. Outlet Garage 8.3 842.0 30.0	o 16.08.2024 5, BOD, COD, C General Standard for discharge of Environmental Pollutants , Inland Surface water by the MoEF&C 5.5-9.0	Test Method V IS-3025 (P-11): 1983 IS-3025 (P-16): 1984 IS-3025(P-17) : 1984
lo. 1. 2. 3. 4.	Date of Testing Test PARAMETERS OF TEST PH, Total Dissolved Solids, mg/l Total Suspended Solids, mg/l Bio chemical Oxygen Demand, mg/l	: 10. : pH, <u>TEST</u> VAL E.T.P. Outlet T.C.H. 8.4 589.0 22.0 3.0	08.2024 T , TDS, TSS RESULT UE E.T.P. Outlet Garage 8.3 842.0 30.0 18.0	o 16.08.2024 , BOD, COD, C General Standard for discharge of Environmental Pollutants, Inland Surface water by the MoEF&C 5.5-9.0 - 100 30	Test Method IS-3025 (P-11): 1983 IS-3025 (P-16): 1984 IS-3025 (P-17) : 1984 IS-3025 (P-44):1994

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DS)	Characterization and Company	Laborat	ory		P.O Jhark Email Webs	hand - 828 ID sindria ite aditimo	Dist - Dhanb 107 diti@gmail.c services.cor
	ISO/IEC 17025:20		And the second second second		State Construction of the		e: 0326-295 e: 0947135	52377 (O) 8492, 09431
Ret	f. No.: - ARDS/24-2					Date: 17	7.08.2024	1
		TEST R	EPORT OF	DRINKING	WATER			
	 Name of the i 	ndustry	JAMADO	A STEEL, EEL LIMIT BA GROU HANBAD	ED PLANT,			
	Work Order R		: 4700126	557/932 D	ate:- 29/05	/2024		
	Sample Code		2. C	anteen- Ja anteen- Ja anteen- Di anteen- 68	madoba V gwadih Co	Vashery olliery		
	Date of Samp	le Collection		8.2024 To		0.01.01.1. 		
	 Date of Testin Test 			8.2024 To	16.08.20	24		
					Leau, LI	ic, iotai		, iotai
SI.	Chromium, Mine	eral Oil, Alkalin	iity, Aluminiu <u>TEST R</u> VAL	m & Boron. RESULT UE		IS as p	per IS	Test
SI. No	Chromium, Mine		ity, Aluminiu <u>TEST F</u>	m & Boron. RESULT UE Canteen Digwadih	Canteen- 6&7 Pits		per IS	Test
No 1.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit)	Canteen- Jamadoba Colliery	TEST F VAL Canteen- Jamadoba Washery	Marka Boron. RESULT UE Canteen Digwadih Colliery 1	Canteen- 6&7 Pits Colliery 1	IS as p 10500: Desirab Ie 5.00	er IS 2012 Permi ssible 15.0	Test Metho IS 302 (P-4):20
No	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen	Canteen- Jamadoba Colliery	TEST F VAL Canteen- Jamadoba Washery	ESULT UE Canteen Digwadih Colliery	Canteen- 6&7 Pits Colliery	IS as p 10500: Desirab Ie	er IS 2012 Permi ssible	Test Metho IS 302 (P-4):20 IS 3025
No 1.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit)	Canteen- Jamadoba Colliery	TEST F VAL Canteen- Jamadoba Washery	Marka Boron. RESULT UE Canteen Digwadih Colliery 1	Canteen- 6&7 Pits Colliery 1	IS as p 10500: Desirab Ie 5.00 Agreeabl	per IS 2012 Permi ssible 15.0 Agree	Test Metho IS 302 (P-4):20 IS 3025 5):201 IS 3025
No 1. 2.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour	Canteen- Jamadoba Colliery 1 Agreeable	TEST F VAL Canteen- Jamadoba Washery 1 Agreeable	RESULT UE Canteen Digwadih Colliery 1 Agreeable	Canteen- 6&7 Pits Colliery 1 Agreeable	IS as p 10500: Desirab le 5.00 Agreeabl e Agreeabl	Permi ssible 15.0 Agree able Agree	Test Metho IS 302 (P-4):20 IS 3025 5):201 IS 3025 7):201 IS 3025
No 1. 2. 3.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste	Canteen- Jamadoba Colliery 1 Agreeable Agreeable	TEST F VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable	Marken & Boron. RESULT UE Canteen Digwadih Colliery 1 Agreeable Agreeable	Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable	IS as p 10500: Desirab le 5.00 Agreeabl e Agreeabl e	Permi ssible 15.0 Agree able Agree able 5.0 No.	Test Metho IS 302 (P-4):20 IS 3025 5):201 IS 3025 7):201 IS 3025 10):198 IS-3025
No 1. 2. 3. 4.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH Total Hardness	Canteen- Jamadoba Colliery 1 Agreeable Agreeable	ity, Aluminiu <u>TEST F</u> VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable	m & Boron. <u>RESULT</u> UE Canteen Digwadih Colliery 1 Agreeable Agreeable 1	Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable	IS as p 10500: Desirab le 5.00 Agreeabl e Agreeabl e 1.0	Permi ssible 15.0 Agree able Agree able 5.0	Test Metho IS 302 (P-4):20 IS 3025 5):201 IS 3025 7):201 IS 3025 10):194 IS-3025 11):194 IS 3025
No 1. 2. 3. 4. 5.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH Total Hardness as CaCO ₃ , mg/l Chloride as Cl,	Canteen- Jamadoba Colliery 1 Agreeable Agreeable 1 7.7	ity, Aluminiu <u>TEST F</u> VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable 1 7.6	m & Boron. <u>RESULT</u> UE Canteen Digwadih Colliery 1 Agreeable Agreeable 1 7.6	Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable 1 7.5	IS as p 10500: Desirab le 5.00 Agreeabl e 1.0 6.5-8.5	Permi ssible 15.0 Agree able 5.0 No. Relax.	Test Metho IS 302 (P-4):20 IS 3025 5):201 IS 3025 7):201 IS 3025 10):194 IS-3025 11):194 IS 3025 21):200 IS 3025
No 1. 2. 3. 4. 5. 6.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH Total Hardness as CaCO ₃ , mg/i	Canteen- Jamadoba Colliery 1 Agreeable Agreeable 1 7.7 400	ity, Aluminiu <u>TEST F</u> VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable 1 7.6 450	m & Boron. <u>RESULT</u> UE Canteen Digwadih Colliery 1 Agreeable Agreeable 1 7.6 445	Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable 1 7.5 180	IS as p 10500: Desirab le 5.00 Agreeabl e 1.0 6.5-8.5 200	Permi ssible 15.0 Agree able 5.0 No. Relax. 600	Test Metho IS 302 (P-4):20 IS 3025 5):201 IS 3025 7):201 IS 3025 10):194 IS 3025 21):200 IS 3025 32):194 IS 3025 32):194
No 1. 2. 3. 4. 5. 6. 7.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU PH Total Hardness as CaCO ₃ , mg/l Chloride as Cl, mg/l Res. Free chlorine as Cl ₂	Canteen- Jamadoba Colliery 1 Agreeable Agreeable 1 7.7 400 82.5	Aluminiu TEST F VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable 1 7.6 450 74.8	m & Boron. <u>RESULT</u> UE Canteen Digwadih Colliery 1 Agreeable Agreeable 1 7.6 445 85	Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable 1 7.5 180 25	IS as p 10500: Desirab le 5.00 Agreeabl e 1.0 6.5-8.5 200 250	Permi ssible 15.0 Agree able 5.0 No. Relax. 600 1000	Test Metho IS 302 (P-4):20 IS 3025 5):201 IS 3025 7):201 IS 3025 10):194 IS 3025 21):200 IS 3025 32):194 IS 3025 26):202 IS 3025
No 1. 2. 3. 4. 5. 6. 7. 8.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU PH Total Hardness as CaCO ₃ , mg/l Chloride as Cl, mg/l Res. Free chlorine as Cl ₂ mg/l Total Dissolved Solids, mg/l	Canteen-Jamadoba Colliery 1 Agreeable Agreeable 1 7.7 400 82.5 N.T. 770 80	ity, Aluminiu <u>TEST F</u> VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable 1 7.6 450 74.8 N.T. 760 105	m & Boron. RESULT UE Canteen Digwadih Colliery 1 Agreeable Agreeable 1 7.6 445 85 N.T. 750 85	Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable 1 7.5 180 25 N.T. 246 55	IS as p 10500: Desirab le 5.00 Agreeabl e 1.0 6.5-8.5 200 250 0.20 500 75	Per IS 2012 Permi ssible 15.0 Agree able 5.0 No. Relax. 600 1000 1.0 2000 200	Test Metho IS 302 (P-4):20 IS 3025 5):201 IS 3025 7):201 IS 3025 10):194 IS 3025 21):200 IS 3025 32):194 IS 3025 26):202 IS 3025 16):194 IS 3025 16):194 IS 3025 16):194
No 1. 2. 3. 4. 5. 6. 7. 8. 9.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU PH Total Hardness as CaCO ₃ , mg/l Chloride as Cl, mg/l Res. Free chlorine as Cl ₂ mg/l Total Dissolved Solids, mg/l Calcium as CaCO ₃ , mg/l	Canteen-Jamadoba Colliery 1 Agreeable Agreeable 1 7.7 400 82.5 N.T. 770	Aluminiu <u>TEST F</u> VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable 1 7.6 450 74.8 N.T. 760	m & Boron. RESULT UE Canteen Digwadih Colliery 1 Agreeable Agreeable 1 7.6 445 85 N.T. 750	Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable 1 7.5 180 25 N.T. 246	IS as p 10500: Desirab le 5.00 Agreeabl e 1.0 6.5-8.5 200 250 0.20 500	Permi ssible 15.0 Agree able 5.0 No. Relax. 600 1000 1.0 2000	Test Metho IS 302 (P-4):20 IS 3025 5):201 IS 3025 7):201 IS 3025 10):198 IS 3025 21):200 IS 3025 32):198 IS 3025 26):202 IS 3025 16):198 IS 3025 16):198 IS 3025 16):198 IS 3025 16):198 IS 3025
No 1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	Chromium, Mine PARAMETERS OF TEST Colour, (Hazen Unit) Odour Taste Turbidity, NTU pH Total Hardness as CaCO ₃ , mg/l Chloride as Cl, mg/l Res. Free chlorine as Cl ₂ mg/l Total Dissolved Solids, mg/l Calcium as CaCO ₃ , mg/l	Canteen-Jamadoba Colliery 1 Agreeable Agreeable 1 7.7 400 82.5 N.T. 770 80	ity, Aluminiu <u>TEST F</u> VAL Canteen- Jamadoba Washery 1 Agreeable Agreeable 1 7.6 450 74.8 N.T. 760 105	m & Boron. RESULT UE Canteen Digwadih Colliery 1 Agreeable Agreeable 1 7.6 445 85 N.T. 750 85	Canteen- 6&7 Pits Colliery 1 Agreeable Agreeable 1 7.5 180 25 N.T. 246 55	IS as p 10500: Desirab le 5.00 Agreeabl e 1.0 6.5-8.5 200 250 0.20 500 75	Per IS 2012 Permi ssible 15.0 Agree able 5.0 No. Relax. 600 1000 1.0 2000 200 1.5	Test Metho IS 302 (P-4):20 IS 3025 5):201 IS 3025 7):201 IS 3025 10):194 IS 3025 21):200 IS 3025 32):194 IS 3025 26):202 IS 3025 16):194 IS 3025 40):194 IS 3025 40):194

1. The test report refers only to the particular item(s) submitted for testing.

2. The test results reported in this report are valid at the time of and under the stated condition of measurement.



NOTE: BDL - Below Detection Limit

Sr. Chemist

Aditi R&D Services



1

Technical Manager Aditi R&D Services, Sindri

Statements :

1. The test report refers only to the particular item(s) submitted for testing.

2. The test results reported in this report are valid at the time of and under the stated condition of measurement.

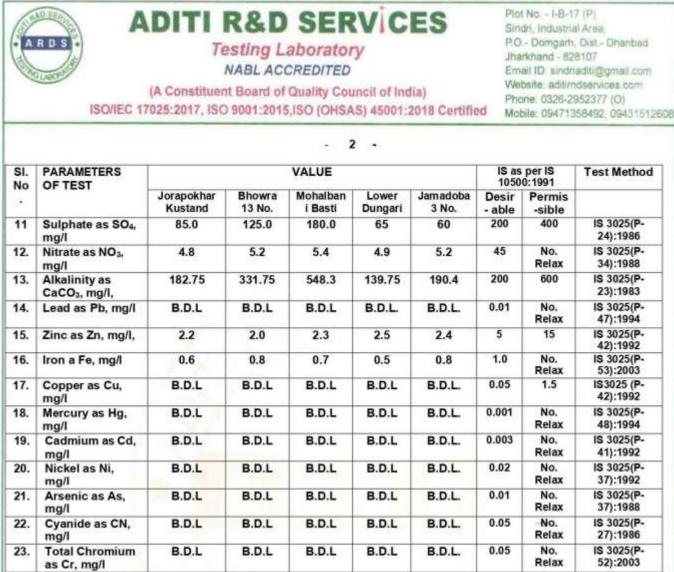
	R D S		(A Constitut 17025:2017, 1	Testing NABL AC	Laborato CCREDITEL	ouncil of la	ndia)	S P J E V P	harkhand - mail ID: sir Vebsite: adi 'hone: 0326	strial Area, arh, Dist Dhanbad
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	• N	lame	of the indus	stry :	M/S TATA STEE TATA STEE JAMADOB/ DIST DHA	STEEL, J El limite A grouf	AMADOBA ED P PLANT,			
	• s	Samp	Order Ref. N le Code of Sample C	10. : :	470012655 1. Jon 2. Bho 3. Mol 4. Lov 5. Jan	7/932 Da apokhar owra 13 N halbani B ver Dung hadoba 3	ite:-29/05/2 Kustand No. Basti gari	024		
			of Testing				16.08.202			
SI		est	3		Iron, C Solids Fluorid Arseni Chrom <u>TEST R</u>	hloride, R , Calcium, de, Pheno ic, Cyanid ium, Mine	Taste, Turbic Res. Free chl , Copper, M lic Compour e, Lead, Zin eral Oil, Alka	orine, T anganes nd, Merc c, Total linity, A	otal Disso se, Sulpha cury, Cadi Coliform, luminium	olved ate, Nitrate, mium, & Boron.
	• T PARAME-TEI OF TEST	RS	Jorapokhar Kustand	Bhowra 13 No.	Iron, C Solids Fluorid Arseni Chron	hloride, R , Calcium, de, Pheno ic, Cyanid ium, Mine	tes. Free chl , Copper, M lic Compour e, Lead, Zin	orine, T anganes nd, Merc c, Total linity, A IS as	otal Disso se, Sulpha sury, Cada Coliform,	olved ate, Nitrate, mium,
No 1.	PARAME-TEI OF TEST Colour, (Hazen Unit)	RS	Kustand 2	Bhowra 13 No. 4	Iron, C Solids Fluorid Arseni Chrom <u>TEST RI</u> VALUE Mohalbani Basti 4	chloride, R , Calcium, de, Pheno ic, Cyanid nium, Mine <u>ESULT</u> Lower Dungari 3	Res. Free chl , Copper, M lic Compour e, Lead, Zin- eral Oil, Alka Jamadoba 3 No. 2	orine, T anganes nd, Merc c, Total linity, A IS as 1050 Desir-	otal Disso se, Sulpha cury, Cadi Coliform, luminium per IS 0:1991 Permi-	olved ate, Nitrate, mium, & Boron. Test
No 1.	PARAME-TEI OF TEST Colour, (Hazen Unit) Temperature Electrical Conductivity,	RS ®C	Kustand	Bhowra 13 No.	Iron, C Solids Fluoric Arseni Chrom <u>TEST RI</u> VALUE Mohalbani Basti	chloride, R , Calcium, de, Pheno ic, Cyanid nium, Mine <u>ESULT</u> Lower Dungari	Res. Free chl , Copper, M lic Compour e, Lead, Zin- eral Oil, Alka Jamadoba 3 No.	orine, To anganes nd, Merc c, Total linity, A IS as 1050 Desir- able	otal Disso se, Sulpha cury, Cadi Coliform, luminium per IS 0:1991 Permi- ssible 15 -	olved ate, Nitrate, mium, & Boron. Test Method IS 3025 (P-
No 1. 2. 3.	PARAME-TEI OF TEST Colour, (Hazen Unit) Temperature Electrical Conductivity, µmhos/cm Total Dissolve	RS ⁰ C	Kustand 2 27	Bhowra 13 No. 4 27	Iron, C Solids Fluoric Arseni Chrom <u>TEST RI</u> VALUE Mohalbani Basti 4 27	chloride, R , Calcium, de, Pheno ic, Cyanid nium, Mine <u>ESULT</u> Lower Dungari 3 27	Res. Free chl , Copper, M lic Compour e, Lead, Zimeral Oil, Alka Jamadoba 3 No. 2 27	orine, Ta anganes nd, Merc c, Total linity, A IS as 1050 Desir- able 5	otal Disso se, Sulpha cury, Cadi Coliform, luminium per IS 0:1991 Permi- ssible 15	olved ate, Nitrate, mium, & Boron. Test Method IS 3025 (P- 4):2021 - -
No 1. 2. 3. 4.	PARAME-TEI OF TEST Colour, (Hazen Unit) Temperature Electrical Conductivity, µmhos/cm	RS ⁰ C	Kustand 2 27 1530	Bhowra 13 No. 4 27 1340	Iron, C Solids Fluorid Arseni Chrom <u>TEST Rf</u> VALUE Mohalbani Basti 4 27 1000	chloride, R , Calcium, de, Pheno ic, Cyanid nium, Mine ESULT Lower Dungari 3 27 570	Res. Free chl , Copper, M lic Compour e, Lead, Zin- eral Oil, Alka Jamadoba 3 No. 2 27 960	orine, To anganes nd, Merc c, Total linity, A IS as 1050 Desir- able 5 -	otal Disso se, Sulpha cury, Cadi Coliform, luminium per IS 0:1991 Permi- ssible 15 - - 2000 No	olved ate, Nitrate, mium, & Boron. Test Method IS 3025 (P- 4):2021
No 1. 2. 3. 4. 5.	PARAME-TEI OF TEST Colour, (Hazen Unit) Temperature Electrical Conductivity, µmhos/cm Total Dissolvo Solids, mg/l	RS °C ed ss	Kustand 2 27 1530 858	Bhowra 13 No. 4 27 1340 745	Iron, C Solids Fluoric Arseni Chrom <u>TEST RF</u> VALUE Mohalbani Basti 4 27 1000	chloride, R , Calcium, de, Pheno ic, Cyanid hium, Mine SULT Lower Dungari 3 27 570 320	Res. Free chl , Copper, M lic Compour e, Lead, Zimeral Oil, Alka Jamadoba 3 No. 2 27 960 537	orine, Tanganes and, Merc c, Total linity, A IS as 10500 Desir- able 5 - - 500 6.5-	otal Disso se, Sulpha cury, Cadi Coliform, luminium per IS 0:1991 Permi- ssible 15 - - - 2000	olved ate, Nitrate, mium, & Boron. Test Method IS 3025 (P- 4):2021 - - - IS 3025(P- 16):1984 IS-3025(P-
No 1. 2. 3. 4. 5. 6. 7.	PARAME-TEI OF TEST Colour, (Hazen Unit) Temperature Electrical Conductivity, µmhos/cm Total Dissolve Solids, mg/l pH Total Hardnes as CaCO ₃ , mg Calcium as Campyl	est RS °C ed ss y/l a,	Kustand 2 27 1530 858 7.4 552 112	Bhowra 13 No. 4 27 1340 745 7.5 550 140	Iron, C Solids Fluoric Arseni Chrom <u>TEST RI</u> VALUE Mohalbani Basti 4 27 1000 5555 7.5 572 120	chloride, R , Calcium, de, Pheno ic, Cyanid ium, Mine <u>ESULT</u> Lower Dungari 3 27 570 320 7.6 229 40	Res. Free chl , Copper, M lic Compour e, Lead, Zimeral Oil, Alka Jamadoba 3 No. 2 27 960 537 7.8 452 112	orine, Tanganes and, Merco c, Total linity, A IS as 10500 Desir- able 5 - - 500 6.5- 8.5 200 75	otal Disso se, Sulpha cury, Cadi Coliform, luminium per IS 0:1991 Permi- ssible 15 - - 2000 No Relax 600 200	olved ate, Nitrate, mium, & Boron. Test Method IS 3025 (P- 4):2021 - - - IS 3025(P- 16):1984 IS-3025(P- 11):1983 IS 3025(P- 21):2009 IS 3025(P- 40):1991
No 1. 2. 3. 4. 5. 6. 7. 8.	PARAME-TEI OF TEST Colour, (Hazen Unit) Temperature Electrical Conductivity, µmhos/cm Total Dissolve Solids, mg/l pH Total Hardnes as CaCO ₃ , mg Calcium as C mg/l Magnesium a Mg, mg/l	est RS °C ed ss g/ a, is	Kustand 2 27 1530 858 7.4 552 112 67.9	Bhowra 13 No. 4 27 1340 745 7.5 550 140 50.0	Iron, C Solids Fluoric Arseni Chrom <u>TEST RI</u> VALUE Mohalbani Basti 4 27 1000 5555 7.5 572 120 68	chloride, R , Calcium, de, Pheno ic, Cyanid ium, Mine SULT Lower Dungari 3 27 570 320 7.6 229 40 32.1	Res. Free chl , Copper, M lic Compour e, Lead, Zimeral Oil, Alka Jamadoba 3 No. 2 27 960 537 7.8 452 112 43	orine, Tanganes and, Merc c, Total linity, A IS as 10500 Desir- able 5 - 500 6.5- 8.5 200 75 30	otal Disso se, Sulpha cury, Cadi Coliform, luminium per IS 0:1991 Permi- ssible 15 - - 2000 No Relax 600 200 100	olved ate, Nitrate, mium, & Boron. Test Method IS 3025 (P- 4):2021 - - - - - - - - - - - - - - - - - - -
SI. No 1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	PARAME-TEI OF TEST Colour, (Hazen Unit) Temperature Electrical Conductivity, µmhos/cm Total Dissolve Solids, mg/l pH Total Hardnes as CaCO ₃ , mg Calcium as C mg/l Magnesium a	est RS °C ed ss g/l a, is Cl,	Kustand 2 27 1530 858 7.4 552 112	Bhowra 13 No. 4 27 1340 745 7.5 550 140	Iron, C Solids Fluoric Arseni Chrom <u>TEST RI</u> VALUE Mohalbani Basti 4 27 1000 5555 7.5 572 120	chloride, R , Calcium, de, Pheno ic, Cyanid ium, Mine <u>ESULT</u> Lower Dungari 3 27 570 320 7.6 229 40	Res. Free chl , Copper, M lic Compour e, Lead, Zimeral Oil, Alka Jamadoba 3 No. 2 27 960 537 7.8 452 112	orine, Tanganes and, Merco c, Total linity, A IS as 10500 Desir- able 5 - - 500 6.5- 8.5 200 75	otal Disso se, Sulpha cury, Cadi Coliform, luminium per IS 0:1991 Permi- ssible 15 - - 2000 No Relax 600 200	olved ate, Nitrate, mium, & Boron. Test Method IS 3025 (P- 4):2021 - - - - - - - - - - - - - - - - - - -



Statements :

1. The test report refers only to the particular item(s) submitted for testing.

2. The test results reported in this report are valid at the time of and under the stated condition of measurement.



NOTE: BDL - Below Detection Limit

Sr. Chemist Aditi R&D Services



Technical Manager Aditi R&D Services, Sindri

Statements :

1. The test report refers only to the particular item(s) submitted for testing.

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3. This particular test report cannot be reproduced except in full without prior permission of Quality Manager of the laboratory.

1

TATA STEEL



ENVIRONMENTAL POLICY

Tata Steel's environmental responsibilities are driven by our commitment to preserve the environment and are integral to the way we do business.

- 1. We are committed to deal proactively with Climate Change issue by efficient use of natural resources & energy; reducing and preventing pollution; promoting waste avoidance and recycling measures; and product stewardship.
- We shall identify, assess and manage our environment impact.
- We shall regularly monitor, review and report publicly our environmental performance.
- We shall develop & rehabilitate abandoned sites through afforestation and landscaping and shall protect and preserve the biodiversity in the areas of our operations.
- We shall enhance awareness, skill and competence of our employees and contractors so as to enable them to demonstrate their involvement, responsibility and accountability for sound environmental performance.
- 2. We are committed to continual improvement in our environmental performance.
- We shall set objective-targets, develop, implement and maintain management standards and systems, and go beyond compliance of the relevant industry standards, legal and other requirements.
- 3. We will truly succeed when we sustain our environmental achievement and are valued by the communities in which we work.

Date: November 1, 2017

TV Narendran CEO & Managing Director

Annexure-IV Coverage of EC grant in newspapers

Publication PRABHAT KHABAR, SHANBADDate 11-3-14 TP TATA TATA STEEL राचना जन साधारण को सूचित किया जाता है कि भारत सरकार. वन एवं पर्यावरण मंत्रालय के पत्रांक संख्या -J-11015/203/2011-IA.II(M) के जरिए जामाडोबा कोल वाशरी (1.0 मिलियन टन प्रतिवर्ष से 2.0 मिलियन टन प्रतिवर्ष विस्तारीकरण परियोजनां) मेसर्स टाटा स्टील लिमिटेड, जामाडोबा, जिला-धनबाद को पर्यावरण स्वीकृति प्रदान की गयी है, जिसकी प्रतिलिपि क्षेत्रीय कार्यालय, झारखण्ड राज्य प्रदूषण नियंत्रण परिषद, धनबाद में उपलब्ध है तथा भारत सरकार, वन एवं पर्यावरण मंत्रालय के इंटरनेट साइट http://envfor.nic.in पर भी देखी जा सकती है। महाप्रबंधक (झरिया) टाटा स्टील, जामाडोबा (धनबाद)

FROM THE PRESS

Publication HINDUSTAN, DHANBAD Date 11-3-14



जन साधारण को सूचित किया जाता है कि भारत सरकार, वन एवं पर्यावरण मंत्रालय के पत्रांक संख्या -J-11015/203/2011-IA.II(M) के जरिए जामाडोबा कोल वाशरी (1.0 मिलियन टन प्रतिवर्ष से 2.0 मिलियन टन प्रतिवर्ष विस्तारीकरण परियोजना) मेसर्स टाटा स्टील लिमिटेड, जामाडोबा, जिला-धनबाद को पर्यावरण स्वीकृति प्रदान की गयी है, जिसकी प्रतिलिपि क्षेत्रीय कार्यालय, झारखण्ड राज्य प्रदूषण नियंत्रण परिषद, धनबाद में उपलब्ध हे तथा भारत सरकार, वन एवं पर्यावरण मंत्रालय के इंटरनेट साइट http://envfor.nic.in पर भी देखी जा सकती है।

महाप्रबंधक (झरिया)

टाटा स्टील, जामाडोबा (धनवाद)

Publication DAINIK BHASKAR, DHANBADDate 11-3-14

TATA TATA STEEL सूचना

जन साधारण को सूचित किया जाता है कि भारत सरकार, वन एवं पर्यावरण मंत्रालय के पत्रांक संख्या -J-11015/373/2010-IA.II(M) के जरिए 6 एवं 7 पिट्स कोलियरी (0.28 मिलियन टन प्रतिवर्ष से 0.6 मिलियन टन प्रतिवर्ष विस्तारीकरण परियोजनां) मेसर्स टाटा स्टील लिमिटेड, जामाडोबा, जिला—धनबाद को पर्यावरण स्वीकृति प्रदान की गयी है, जिसकी प्रतिलिपि क्षेत्रीय कार्यालय, झारखण्ड राज्य प्रदूषण नियंत्रण परिषद, धनबाद में उपलब्ध है तथा भारत सरकार, वन एवं पर्यावरण मंत्रालय के इंटरनेट साइट <u>http://envfor.nic.in</u> पर भी देखी जा सकती है।

महाप्रबंधक (झरिया) टाटा स्टील, जामाडोबा (धनबाद)

Publication DAINIK JAGRANI, DHANBAD Date 11-3-14

रि тата тата steel सूचना

जन साधारण को सूचित किया जाता है कि मारत सरकार, वन एवं पर्यावरण मंत्रालय के पत्रांक संख्या -J-11015/373/2010-IA.II(M) के जरिए 6 एवं 7 पिट्स कोलियरी (0.28 मिलियन टन प्रतिवर्ष से 0.6 मिलियन टन प्रतिवर्ष विस्तारीकरण परियोजना) मेसर्स टाटा स्टील लिमिटेड, जामाडोबा, जिला—धनबाद को पर्यावरण स्वीकृति प्रदान की गयी है, जिसकी प्रतिलिपि क्षेत्रीय कार्यालय, झारखण्ड राज्य प्रदूषण नियंत्रण परिषद, धनबाद में उपलब्ध है तथा भारत सरकार, वन एवं पर्यावरण मंत्रालय के इंटरनेट साइट <u>http://envfor.nic.in</u> पर भी देखी जा सकती है।

महाप्रबंधक (झरिया)

टाटा स्टील, जामाडोबा (धनबाद)

ANNEXURE-V

Municipal Commissioner, Dhanbad.

Ref No.: JMB/ENV/DIG/37/ 805-/2018

September 17, 2018

Sub: Submission of copy of Environmental Clearance granted to units of M/s Tata Steel Limited

Dear Sir,

Please find enclosed the letter of Environmental Clearance (EC) granted by MoEFCC to various units of Tata Steel Limited, Jharia Division, Dhanbad as per the following details-

- 1. Digwadih Colliery (for expansion from 0.38 MTPA to 0.6 MTPA in ML area 314.57 ha), dist. Dhanbad, Jharkhand.
- 2. 6 & 7 Pits Colliery (for expansion from 0.28 MTPA to 0.6 MTPA in ML area 168.12 ha), dist. Dhanbad, Jharkhand.
- 3. Jamadoba Coal Washery (for expansion from 1 MTPA to 2 MTPA in 7 Ha area), dist. Dhanbad, Jharkhand.

The copy of EC letter and its compliance is also uploaded in website (<u>http://www.tatasteel.com/sustainability/environment-compliance-reports/</u>) for your kind perusal.

Thanking You,

Yours faithfully,

Head, Planning

Jharia Division

कार्यालय नगर निगम प्राप्ति तिथि २.इ. ९ धनबाद