

MGM/CO/2024-25/05- **69**
Date: 30.05.2024

To

The Deputy Director General of Forests
Ministry of Environment, Forest & Climate Change
Eastern Regional Office, A/3, Chandrasekharpur,
Bhubaneswar-751023

Sub: **EC Compliance Report (June 2024)**

Submission of Six-Monthly Compliance report for the period of October 2023 to March 2024

Ref: **Environmental Clearance Letter No. J-11015/41/2006-1A.II (M), dtd. 09.01.2007**

Sir,

With reference to the subject cited above we are submitting herewith the hard and soft copies of compliance report for the period **October 2023 to March 2024** in respect of our Patabeda Iron & Mn. Mines over 19.425 Ha.

The soft copy of compliance report is sent to roez.bsr-mef@nic.in & uploaded in the Parivesh portal.

Thanking you

Yours Faithfully

For **M/s. M.G Mohanty**


R. L. Mohanty
Managing Partner

Encl: Point wise compliance to the EC letter
Quarterly Environmental data generated during **October 2023 to March 2024**

**SIX MONTHLY COMPLIANCE REPORTS
OF
CONDITIONS LAID DOWN**

**VIDE LETTER NO- J-11015/41/2006-1A.II (M), DTD 09.01.2007
OF
MINISTRY OF ENVIRONMENT, FORESTS & CLIMATE CHANGE,
GOVERNMENT OF INDIA**

**IN RESPECT OF
PATABEDA IRON & MN. MINES**

(19.425 HA.)

OF

**M/s. M.G MOHANTY
5A, FOREST PARK
BHUBANESWAR-751009**

June 2024

Six monthly compliance reports of conditions laid down vide letter no- J-11015/41/2006-1A.II (M), dtd. 09.01.2007 of Ministry of Environment, Forests & Climate Change, Government of India in respect of Patabeda Iron & Mn. Mines (19.425 Ha.) of M/s. M.G Mohanty for the period from October 2023 to March 2024

Name of The Project: Patabeda Iron & Mn. Mines of M/s. M G Mohanty over 19.425 Ha. area in Sundergarh District of Odisha.

Clearance Letter/s No. and date: Letter no. J-11015/41/2006.1A.II (M), dtd. 09.01.2007

Period of Compliance Report: October 2023 to March 2024

Specific Conditions		
SL. No.	Conditions	Compliance Status
i.	All the conditions stipulated by the State Pollution Control Board in their Consent to establish should be effectively implemented.	The conditions laid down in Consent to establish have been complied. Consent to operate has been obtained by OSPCB vide letter No.4570/IND-I-CON-2402 dated 19.03.2023 which is valid upto 31.03.2026.
ii.	The environmental clearance is subject to grant of forestry clearance. The project proponent shall obtain necessary forestry clearances under the Forest (Conservation) Act, 1980 for an area of 16.507 Ha. forest land before starting mining operation in that area.	Forest Clearance Obtained over an area of 15.622 Ha. excluding safety zone area 0.885 Ha. under the Forest (Conservation) Act, 1980 vide letter No-5-ORC039/2007-BHU dt 17.08.2009 from Ministry of Environment and Forests. At that time, diversion of forest land coming within safety zone was not considered for diversion. No mining activity is being carried out in the safety zone area. The diversion proposal for safety zone area over 0.885 ha has already been applied through online Parivesh portal and is under process, after getting the same we will submit your good office. Copy Letter of FC Approval enclosed as Annexure-1
iii.	The Mining operations shall not intersect ground water table. Prior approval of the Ministry of Environment & Forests and Central Ground Water Authority shall be obtained for mining below water table.	Agreed. Ground water table is at a (-) 100 m depth from the existing surface mine working level mRL- 682 and shall not be affected due to mining operation.
iv.	The project proponent shall ensure that	There is no natural watercourse is present

	no natural watercourse shall be obstructed due to any mining operations.	within our mining lease area.
v.	Top Soil shall be stacked properly with proper slope with adequate measures and should be used for reclamation and rehabilitation of mined out areas.	The mining operation is concentrated in broken up areas. There is practically no top soil available.
vi.	The overburden likely to be generated during the mine life shall be temporarily stored as external OB dump and will be finally backfilled. The existing OB dump in an area of 0.5 ha. in the south east corner should be scientifically vegetated with suitable native species to prevent erosion and surface run off. The overall slope of the dump shall not exceed 28⁰. The balance area of 2.549 ha earmarked for OB dumps shall be reclaimed after re-handling the waste. There will be no new external OB dump created and remained at the end of the mine life. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self – sustaining. Compliance status should be submitted to the Ministry of Environment & Forests on six monthly basis.	Overburden generated is stacked at its earmarked sites as per approved Mining Plan/Schemes. The total area earmarked for OB dump is 2.549 Ha. There will be no new external OB dump created and remained at the end of the mine life. Once the material fully exhausted reclamation will be done with plantation. Photograph of Dump Site- Photo -1 Adequate terracing and vegetation already created over the slopes of these dumps. Overall slope of the dump is not exceeding 28⁰.
vii.	Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from mine working, soil, OB, and minerals dumps. The water so collected should be utilized for watering the mine area, roads, green belt, development, etc. The drains should be regularly de-silted particularly after monsoon and maintained properly. Garland drain (size, gradient and length) shall be constructed for mine pit, soil, OB and mineral dumps and sump capacity should be designed keeping 50% safety margin over and above peak	Three numbers of Settling Pond have been constructed to arrest the surface runoff water at the following location: Settling Pond-1 Lat: 21°55'50.10"N - Long: 85°22'30.58"E Capacity : 1176 m³ (1176 KL) Surface Area: 392 m² Settling Pond-2 Lat: 21°55'47.52"N - Long: 85°22'32.48"E Capacity : 1785 m³ (1785 KL) Surface Area: 357 m² Settling Pond-3 Lat: 21°55'55.90"N - Long: 85°22'34.36"E

	sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material, sedimentation pits should be constructed at the corners of the garland drains and de-silted at regular intervals.	Capacity : 591 m³ (591 KL) Surface Area: 197m Garland drain and Retaining wall have been constructed around the dump and the regular cleaning, maintenance of drain and de-siltation of settling pond is also carried out. The water so collected is being utilized for watering the mine area, roads, green belt development etc. Photo Graph of Settling Ponds Photo 2. Garland Drain Photo-3, Check Dam-Photo-4
viii.	Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off siltation should be based on the rain fall data.	There is no OB bench within the mine. Retaining wall having adequate height has been made at the toe of the dump and mineral stack yard to prevent surface run off of silts. Photo Graph of Settling Ponds Photo 2. Garland Drain Photo-3, Check Dam-Photo-4
ix.	Plantation shall be raised in an area of 18.945 ha. Including a green belt of adequate width by planting the native species around ML area, OB dumps, roads, etc. in consultation with the local DFO /Agricultural Department. The density of the trees should be around 2000 plants per ha.	A Green belt over 1.290 Ha. has been developed by planting native species in consultation with the local DFO around the ML area. Over 1.411 ha. of land of existing dump slope, land between dump, pit and road has been planted with native plant species. A total No. of 19354 saplings were planted upto September 2023. Balance 16.244 ha. of land will be reclaimed and plantation on it concurrently on exhaust of ore or completion of mining activity of that area.
x.	The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.	Ground water table is not encountered as the mining operation is confined on top of the hill only. (Ref Annexure-2)
xi.	Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and constructing new piezometer during the mining operation. The	The project is quarterly monitoring the ground water quality. The surrounding area of the mines water level from the existing wells near Patabeda Village has been found in well no-1 (594.2 mRL) and well no -2 (595

	monitoring should be carried out four times in a year Pre-Monsoon (April-May), Monsoon (August), post Monsoon (November) and Winter (January) and the data thus collected may be sent regularly to Ministry of Environment and Forests and its regional office, Central Ground Water Authority and Regional Director Central Ground Water Board.	mRL). Ground Water Quality:- Annexure-3)
xii.	Permission from the competent authority should be obtained for drawl of water from Jurudi Nala and also ground water, if any.	Central Ground Water Authority has given NOC for withdrawal of 30 cum/day of ground water for domestic consumption. NOC from CGWA- Annexure-4
xiii.	Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with Regional Director, CGWB.	A big catch pit of 55m length x 20m width and depth varying 5m to 10m has been constructed outside lease area. Adequate capacity of catch pit is provided for storage of water and utilization for rain water harvesting. The water is being channelised through garland drains to the catch pit. Ref. Photo:2
xiv.	Vehicular emissions should be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles should be covered with a tarpaulin and shall not be overloaded.	The vehicular emissions are regularly monitored and kept under control. The vehicle used for mining and transportation of minerals are properly maintained. The ore transported vehicles are not overloaded and are covered with tarpaulin. Ref. Photo -5
xv.	Blasting operation should be carried out only during the day time. Controlled blasting should be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.	Blasting is done at day time only by adopting controlled blasting technique. Additional control measures taken to arrest fly rocks are as follows • Parking all vehicles and equipment a safe distance from the blasting area whenever possible • Staying behind a blast shield or blast mats for fly rock protection during blasting • Making sure everyone has evacuated the blast area before proceeding • Always following the supervisor's

		instructions Carefully guarding the access roads to the blast area
xvi.	Drills shall either be operated with dust extractors or equipped with water injection system.	The DTH drilling machines have been fitted with dust suppressing system with atomized water. These also have dust extraction system with bag filters along with dust suppressing system. The rock drills have been fitted with atomized water spray system. Dust suppression is also done by covering the drill steel with wet jute sack. Ref.: Photo 6
xvii.	Consent to Operate should be obtained from SPCB prior to start of enhanced production from time to time.	Consent to Operate has been obtained from SPCB vide Letter no- 4507/IND-I-CON 2402, Consent Order No. 881 dated 19.03.2021 valid up to dt-31.03.2026. Copy of consent to operate: Annexure-5
xviii.	Sewage treatment plant should be installed for the colony. ETP should also be provided for workshop and waste water generated during mining operation.	Sewage treatment plant has been installed in the staff colony; the sewage generated at colony site is flown to the STP. ETP has been installed near the workshop.
xix.	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna if any spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wild Life Department. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. Copy of action plan may be submitted to the Ministry and its Regional Office within three months.	Precaution measures are taken for conservation of flora and fauna are indicated in approved site-specific conservation plan. For approval and implementation of site-specific wild life conservation plan Rs 1500000.00 (Rupees Fifteen lakhs) has been deposited on dt 09.07.2009. Copy of Approval letter of PCCF Wild Life: Annexure-6
xx.	A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for	Agreed.

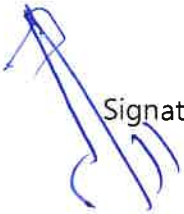
	approval.	

General Conditions:		
SL No.	Conditions	Compliance Status
i.	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.	There is no change in mining technology at present, if necessary prior approval will be obtained from the Ministry of Environment & Forests.
ii.	No change in the calendar plan including excavation, quantum of mineral iron ore and waste should be made.	Mining operation is going on according to the approved Mining Plan/Schemes.
iii.	Four ambient air quality monitoring stations should be established in the core zone as well as in the buffer zone for RPM, SPM, SO ₂ , NO _x monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.	Ambient air quality monitoring in the core zone as well as in the buffer zone for RPM, SPM, and SO ₂ NO _x and CO is being carried out by the recognized consultant "SUPCO" quarterly in proper manner. Copy of Monitoring report – Annexure-7
iv.	Data on ambient air quality (RPM, SPM, SO ₂ , NO _x) should be regularly submitted to the Ministry including its Regional office located at Bhubaneswar and the State Pollution Control Board/Central Pollution Control Board once in Six months.	Control measures like adopting wet drilling, water sprinkling of haul roads, plantation along the ML boundary is also carried out to prevent the propagation of air born dust in the mining lease area. Data on ambient air quality (RPM, SPM, SO ₂ NO _x) is submitted once in six months regularly to the Ministry including Regional office at Bhubaneswar, SPCB/CPCB. Copy of Monitoring report – Annexure-7,
v.	Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangements on haul roads, loading and unloading and at transfer points should be provided and properly maintained.	Fugitive dust emissions from all the sources are being controlled. The mine haul road is equipped with water sprinklers having manual and auto control system. Spraying of water at loading and unloading points are done regularly. Copy of Monitoring report – Annexure-7
vi.	Measures should be taken for control of noise levels below 85 dBA in the work	Proper maintenance of the noise generating parts of the machines is introduced. Air

	environment. Workers engaged in operations of HEMM etc. should be provided with ear plugs/muffs.	silencers of suitable type that can modulate the noise of the engines of machinery are in use. They are maintained effectively. Ear muffs are given to those persons operating or working close to any machine. The periodical monitoring of noise levels and audiometric test of the employees are being carried out and found that the measures taken are effective. Copy of Monitoring report – Annexure-7
vii.	Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dt 19 th May, 1993 and 31 st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.	We have no workshop or mineral washing plants within our lease hold area. There is no waste water generated from the lease area with respect to workshop etc.
viii.	Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information of safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	Personnel working in the dusty area have been provided with dust mask for proper respiration and are being trained in our EZMA vocational training centre. PME & IME of all workers is being carried out systematically in a regular interval as per the statutory norms. The IME, PME & Eye refraction test for the year 2023-24 are as follows: 1. Patabeda Iron & Mn Mines (19.425 Ha) a. IME : 11 Nos. b. PME : 30 Nos. c. Eye refraction Test : 15 Nos. Copy of sample report is enclosed as Annexure-8
ix.	A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.	An Environmental Cell has been constituted with suitable qualified personal under the control of Agent of the mining lease, who is supposed to report directly to the managing partner of the leasehold. Copy of the same is enclosed as Annexure-9
x.	The funds earmarked for environmental	Earmarked funds are managed accordingly.

	protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Offices located at Bhubaneswar.	The detailed expenditure on account of EMP made for the year 2023-24 is enclosed as Annexure-10
xi.	The project authorities should inform to the Regional Office located at Bhubaneswar regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	Agreed, will be communicated in due course.
xii.	The Regional Office of this Ministry located at Bhubaneswar shall monitor compliance of the stipulated conditions. The Project authorities should extend full co-operation to the officer(s) of the Regional Office by furnishing the requisite data/information/monitoring reports.	Being complied with
xiii.	A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation has been received while processing the proposal.	A copy of clearance letter already provided to local Panchayat.
xiv.	State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's Office /Tehsildar's Office for 30 days.	Condition has already been complied with.
xv.	The project authorities should advertise at least in two local newspapers widely circulated , one of which shall be in the vernacular language of the locality concerned , within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment & Forests at http://envfor.nic.in and a copy of the	The project authority has already advertised in two local news papers out of which one is in vernacular language within seven days of the issue of this clearance letter informing about the clearance. The copy of the advertisement published on 12.01.2007 had been duly communicated to Regional office, MOEF, Bhubaneswar on dated 12.01.2007.

	same should be forwarded to the Regional Office if this Ministry located Bhubaneswar.	
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 Signature

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT & FORESTS
EASTERN REGIONAL OFFICE
A/3, CHANDRASEKHARPUR, BHUBANESWAR - 751 023
TEL. : (Off.) 2301213, 2302432, 2302443, 2302452, 2302453
FAX : 0674-2302432. GRAM : PARYAVARAN, BHUBANESWAR
Email: mef@ori.nic.in

5-ORC039/2007-BHU

Annexure-1
भारत सरकार
पर्यावरण एवं वन मंत्रालय,
पूर्वी क्षेत्रीय कार्यालय
ए/3, चन्द्रसेखरपुर, भुवनेश्वर - 751 023
तार - पर्यावरण, भुवनेश्वर

August 17, 2009

To

Annexure-1

The Principal Secretary,
Forest & Environment Department,
Govt. of Orissa,
Bhubaneswar.

Sub:-

Diversion of 15.622 ha of forest land for Patabeda Iron and Manganese Mines of M/s M.G. Mohanty in Sundergarh district of Orissa - 1st renewal of mining lease.

Sir,

I am directed to refer to your letter No. 10F-(Con.)-84/2009.3223/F&E dated 29.07.2009 on the above mentioned subject seeking prior approval of the Central Govt. in accordance with Section-2 of the Forest(Conservation) Act, 1980.

After careful consideration of the proposal of the State Government, the Central Government hereby conveys its approval under Section-2 of the Forest(Conservation) Act, 1980 for diversion of 15.622 ha of forest land for Patabeda Iron and Manganese Mines of M/s M.G. Mohanty in Sundergarh district of Orissa - 1st renewal of mining lease, subject to the compliance of the following conditions:-

1. Legal status of the forest land diverted shall remain unchanged.
2. Compensatory afforestation shall be raised over 15.622 ha of non-forest land identified in Plot No. 270(part) of Khata No. 178 in village - Tamda of Bonai Tahasil of Sundergarh District at the project cost and shall be subsequently declared as PF/RF and submit the report within a period of six months, failing which the approval stands deemed withdrawn.
3. Penal Compensatory Afforestation shall be raised over 33.738 ha of degraded forest land (three times of 11.246 ha of degraded) identified by the State Government at Talita RF in Bonai Range at the project cost.
4. The State Forest Department/UA shall submit the surveyed sketch of 15.622 ha of non-forest land identified in Plot No. 270(part) of Khata No. 178 in village - Tamda of Bonai Tahasil of Sundergarh District for CA, giving the forward and backward bearing of each demarcation pillar and distance between them. The State Forest Department/User Agency shall submit the GPS reading of each demarcated pillar giving the latitude and the longitude.
5. The State Forest Department/UA shall submit the surveyed sketch of 33.738 ha of degraded forest land (three times of 11.246 ha of degraded) identified by the State Government at Talita RF for Penal CA, giving the forward and backward bearing of each demarcation pillar and distance between them. The State Forest Department/User Agency shall submit the GPS reading of each demarcated pillar giving the latitude and the longitude.

6. The State Forest Department/ UA shall also submit the surveyed sketch of 15.622 ha of forest land for Patabeda Iron and Manganese Mines of M/s M.G. Mohanty in Sundergarh district, giving the forward and backward bearing and distance between them. The GPS reading of latitude and longitude of those pillars shall also be given for records.
7. Mining shall be done strictly as per the mining plan approved by the IBM and copy of revised Mining Plan(s) for subsequent five year periods shall be furnished to the Regional Office without fail.
8. The period of permission granted Under the Forest(Conservation) Act, 1980 shall be co-terminus with the period of current mining lease granted under MMRD Act or 20 years whichever is earlier.
9. Reclamation of mined out area as well as Over Burden dumps will be done as per the reclamation plan prepared in this regard. Progress of reclamation will be periodically monitored by the State Forest Department. Serious lapse in achieving reclamation targets shall invite severe action leading to even closure of mine.
10. Fencing, protection, regeneration and maintenance of safety zone area (7.5 meters strip all along the outer boundary of the mining lease area as recommended the State Government) shall be done at the project cost as envisaged. Besides, this, afforestation on degraded forest land, to be selected elsewhere, measuring one and half times the area under safety zone, shall also be done at the project cost as envisaged.
11. The State Government shall implement the Regional Wild Life Management Plan prepared by the State Government for the said Region.
12. The State Government shall implement the Conservation Plan for forest diversion area as per guidelines of Chief Wildlife Warden, Orissa at the project cost.
13. The User Agency shall deposit the estimated royalty of 108 numbers enumerated trees, before commencement of felling on final approval of forest diversion.
14. Trees standing in the diverted area shall be felled strictly as per requirement to break fresh land. Prior permission of the Divisional Forest Officer shall be obtained for felling trees.
15. No labour camps shall be established on the adjoining forest land
16. The demand of fuel for the labourers, if camping outside the forest land in the vicinity of forest shall be met by the user agency at project after purchase of fuel from the approved source and a distribution register shall be maintained for regular monitoring of the local supervisors/forest officers to ensure no damage to the surrounding forest.
17. The user agency shall ensure that no damage to the available wildlife or to the forest flora in the adjoining forest is caused by labourers/workmen engaged by the project authorities or contractor working under them.
18. The forest land shall not be used for any purpose other than that specified in the proposal.
19. Adequate soil and water conservation measures, as and when required, shall be taken by the User Agency in consultation with Forest Officials to check any soil erosion in the lease hold area.
20. The User Agency shall obtain environmental clearance under provision of EIA Notification issued under Environmental(Protection) Act, as applicable.
21. Any other conditions that the Central Government or CCF(Central) of Eastern Regional Office, Bhubaneswar may impose from time to time in the interest of afforestation, conservation and management of flora and fauna in the area, which shall be complied by the user agency.

22. In case of non-compliance of any of the above conditions, the concerned Divisional Forest officer shall report through the State Govt. to this office as per procedure laid down in the clause 1.9 of guidelines issued under Forest(Conservation) Act, 1980 on 25.10.1992.

The State Government shall ensure compliance of all the above conditions.

Yours faithfully,

(A.K. BISWAL)

DY. CONSERVATOR OF FORESTS(CENTRAL)

Copy to:-

1. The Inspector General of Forest(FC), Ministry of Environment & Forests, Paryavaran Bhawan, CGO Complex, Lodi Road, New Delhi - 110 003.
2. The Principal Chief Conservator of Forests, Govt. of Orissa, Aranya Bhawan, C.S. Pur, Bhubaneswar - 16.
3. The Nodal Officer, O/o the Principal Chief Conservator of Forests, Govt. of Orissa, Aranya Bhawan, C.S. Pur, Bhubaneswar - 16.
4. The Divisional Forest Officer, Bonai Forest Division, Sundergarh.
5. M/s M.G. Mohanty, Mine Owners, 5A, Forest Park, Bhubaneswar - 751 009
6. Guard File.

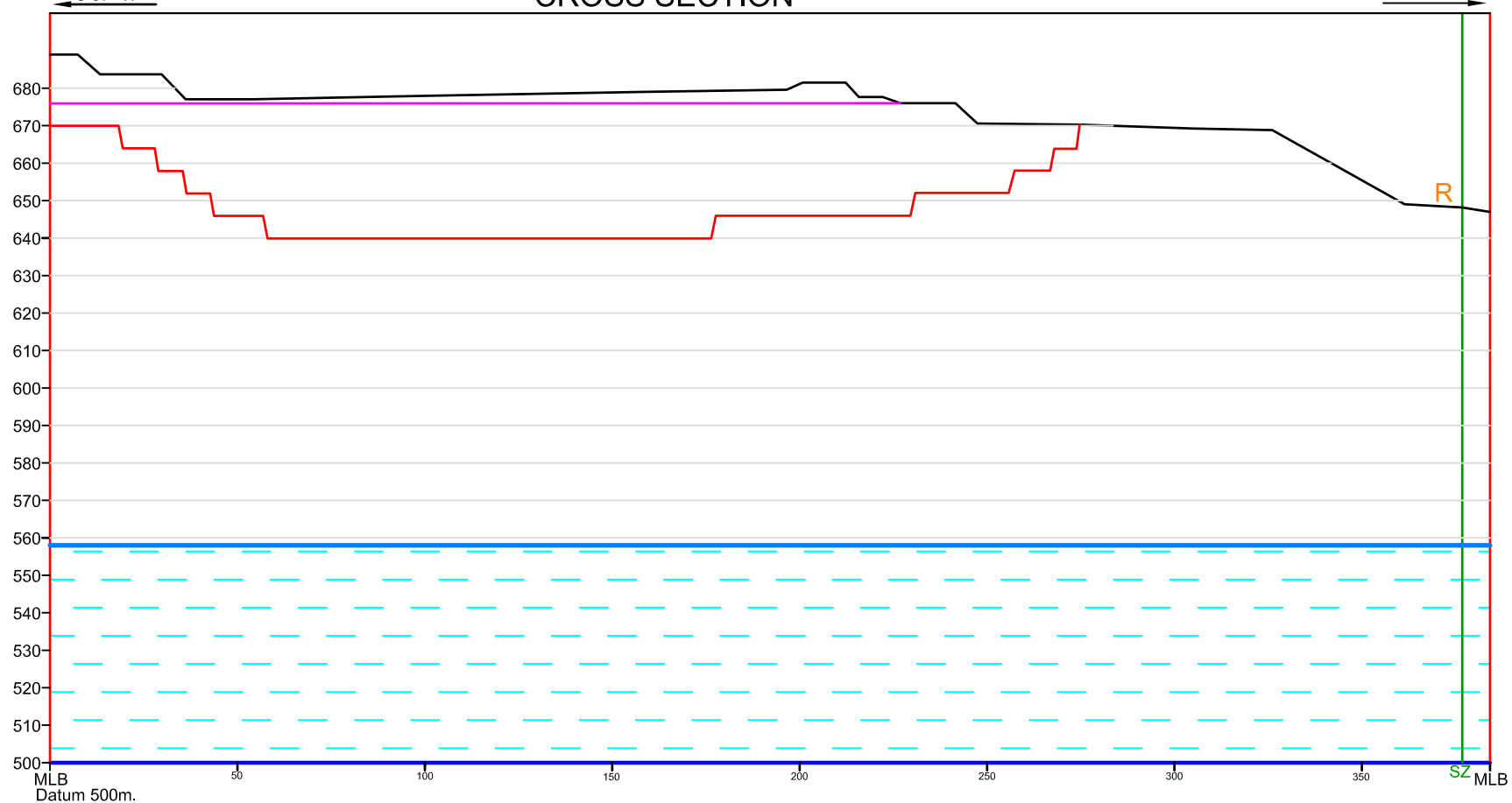
DY. CONSERVATOR OF FORESTS(CENTRAL)

RL. In Meters

S 87° W

CROSS SECTION

N 87° E



INDEX

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| | 7.5 Mts Safety line |
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| | Ground Water Table |
| | Road |

Annexure-2

Schematic diagram of Ground Water Table WRT mine working of Patabeda Iron and Manganese Mines over 19.425 ha. in Sundergarh District of Odisha of M/s M G Mohanty



SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

LABORATORY :

PLOT NO. Y-23, BLOCK-EP, SECTOR-V, SALT LAKE CITY, KOLKATA-700 091

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GSTIN : 19AAECS3740C2ZJ



(An ISO 9001 : 2015 Certified)



TC-8066

TEST REPORT

ULR-TC806624000000501F

Report No. N- 1494	Date: 12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work-order no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	22.03..2024
Sub:	Water monitoring
Material:	Drinking Water.
Group:	Water

CHEMICAL REPORT

Date of starting of Test 22.03..2024

Date of completion of Test: 10.04.2024

Sl. No.	Specific Test Performed	Test Method	Permissible limit IS:10500/2012 (max)	Test Result	
				GW1 Ganua camp Bore well Date of Collection 14.03.2024	GW2 Ganua camp Dug Well Date of Collection 14.03.2024
1	pH	IS :3025,P-11, R.A 2009	6.5 – 8.5	8.5 at 17 °C	6.6 at 16 °C
2	Colour(Hazen unit)	APHA, 23rd Edn, 2120 B	15	5	8
3	Total Hardness as CaCO ₃ ,mg/l	IS 3025 (P-21), R.A. 2006	600	32	44
4	Alkalinity as CaCO ₃ ,mg/l	IS 3025 (P-23), R.A. 2014	600	24	56
5	Chlorides as Cl ⁻ , mg/l	IS 3025, P-32	1000	8	4
6	Calcium as Ca, mg/l	APHA 23rd EDN 3500 Ca B	200	8.0	12.8
7	Magnesium as Mg, mg/l	APHA 23rd EDN 3500 Mg B	100	2.9	2.9
8	Residual Free Chlorine, mg/l	IS 3025, P-34	1.0	<1.0	<1.0
9	Sulphate as SO ₄ ,mg/l	APHA, 23rd Edn, 4500 SO ₄ E	400	4.0	2.0
10	Nitrate as NO ₃ , mg/l	APHA, 23rd Edn, 4500 NO ₃ - B	45	2.5	3.9
11	Iron as Fe,mg/l	APHA, 23rd Edn, 3111 B	0.3	0.301	0.296
12	Copper as Cu,mg/l	APHA, 23rd Edn, 3111 B & C	1.5	<0.05	<0.05
13	Manganese as Mn,mg/l	APHA, 23rd Edn, 3111 B	0.3	<0.03	<0.03
14	Phenolic Compounds C ₆ H ₅ OH, mg/l	APHA, 23rd Edn, 5530 D	0.002	<0.002	<0.002
15	Zinc as Zn, mg/l	APHA, 23rd Edn, 3111 B & C	15.0	<0.01	<0.01
16	Cadmium as Cd, mg/l	APHA, 23rd Edn, 3111 B & C	0.003	<0.003	<0.003
17	Arsenic as As, mg/l	APHA, 23rd Edn, 3120 B	0.05	<0.05	<0.05
18	Cyanide as CN, mg/l	APHA, 23rd Edn, 4500 E	0.05	<0.05	<0.05
19	Lead as pb	--	-	<0.01	<0.01
20	Fluoride as F, mg/l	APHA, 23rd Edn, 4500 F – D	1.5	0.126	0.205
21	Total Dissolved solids (mg/l)	IS :3025, P-16, RA-2012	2000	42	56
22	Aluminium as Al mg/l	APHA 23rd Edn 3500 Al-B	0.2	<0.2	<0.2
23	Boron as B mg/l	APHA 23rd Edn 4500 B-B	1.0	<1.0	<1.0
24	Mercury as Hg, mg/l	IS 3025, P-48, Mercury Analyser	0.001	<0.001	<0.001
25	Turbidity (NTU)	IS 3025 (P-10), R.A. 2006	5	<1.0	1.3
26	Total Chromium as Cr ⁶⁺ , mg/l	APHA, 23rd Edn, 3500 B	0.05	<0.05	<0.05

Tested by

A. CHATTERJEE

Authorised Signatory

P. DUTTA (Technical Manager)

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SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

LABORATORY :

PLOT NO. Y-23, BLOCK-EP, SECTOR-V, SALT LAKE CITY, KOLKATA-700 091

☎ : (033) 2357-4671/ 4681 / 5039 / 5042 • Fax : (033) 2357- 4806

E-mail : supind2019@gmail.com / supind50@yahoo.co.in

Website : www.superintendencecoindia.com

GSTIN : 19AAECS3740C2ZJ



(An ISO 9001 : 2015 Certified)

TEST REPORT

Report No. N- 1494	Date: 12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work-order no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
- Sample receiving date:	22.03..2024
Sub:	Water monitoring
Material:	Drinking Water.
Group:	Water

Date of starting of Test 22.03..2024

CHEMICAL REPORT

Date of completion of Test: 10.04.2024

Sl. No.	Specific Test Performed	Test Method	Permissible limit IS:10500/ 2012 (max))	Test Result	
				GW1 Ganua camp Bore well Date of Collection 14.03.2024	GW2 Ganua camp Dug Well Date of Collection 14.03.2024
27	Temperature °C	APHA, 23rd Edn, 2550 B	-	17 °C	16 °C
28	Mineral oil ,mg/l	IS :3025,P-39, R.A 2009	0.5	<0.5	<0.5
29	Odour	IS 3025 (P-06), R.A. 1983	Agreeable	Agreeable	Agreeable
30	Taste	IS 3025 (P-07), R.A. 1984	Agreeable	Agreeable	Agreeable

Tested by:

A. CHATTERJEE

Authorised Signatory

P. Dutta (Technical Manager)

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TEST REPORT

Report No. N- 1494	Date: 12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work-order no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	22.03..2024
Sub:	Water monitoring
Material:	Drinking Water.

TEST RESULT OF BACTERIOLOGICAL

Date of starting of Test: 22.03..2024

Date of completion of Test: 03.04.2024

Sl. No.	Specific Test Performed	Test Method	Permissible Limits as per 10500:2012	Test Result	
				GW1 Ganua camp Bore well	GW2 Ganua camp Dug Well
				Date of Collection 14.03.2024	Date of Collection 14.03.2024
1	Coliform Organism / 100 ml.	As per IS: 1622-81	Shall not be detectable in 100 ml sample	Not found / 100ml	Not found / 100ml
2	E. Coli / 100ml.		Shall not be detectable in 100 ml sample	Not found / 100ml	Not found / 100ml

Tested by:

R Dasgupta
R Dasgupta

H. Ray
H. Ray

Antara Das
Antara Das

Authorised Signatory

P. Dutta
P. Dutta (Technical Manager)

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GSTIN : 19AAECS3740C2ZJ



(An ISO 9001 : 2015 Certified)



TEST REPORT

ULR-TC806623000000016F

Report No. N- 1052	Date: 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work-order no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	26.12..2023
Sub:	Water monitoring
Material:	Drinking Water.
Group:	Water

CHEMICAL REPORT

Date of starting of Test 27.12..2023

Date of completion of Test: 03.01.2024

Sl. No.	Specific Test Performed	Test Method	Permissible limit IS:10500/2012 (max)	Test Result	
				GW1 Ganua camp Bore well Date of Collection 14.12.2023	GW2 Ganua camp Dug Well Date of Collection 14.12.2023
1	pH	IS :3025,P-11, R.A 2009	6.5 – 8.5	6.6 at 16 °C	6.7 at 16 °C
2	Colour(Hazen unit)	APHA, 23rd Edn, 2120 B	15	<1.0	<1.0
3	Total Hardness as CaCO ₃ ,mg/l	IS 3025 (P-21), R.A. 2006	600	44	56
4	Alkalinity as CaCO ₃ ,mg/l	IS 3025 (P-23), R.A. 2014	600	28	32
5	Chlorides as Cl , mg/l	IS 3025, P-32	1000	4	12
6	Calcium as Ca, mg/l	APHA 23rd EDN 3500 Ca B	200	13	13
7	Magnesium as Mg, mg/l	APHA 23rd EDN 3500 Mg B	100	3	6
8	Residual Free Chlorine, mg/l	IS 3025, P-34	1.0	<1.0	<1.0
9	Sulphate as SO ₄ ,mg/l	APHA, 23rd Edn, 4500 SO ₄ E	400	4	1.0
10	Nitrate as NO ₃ mg/l	APHA, 23rd Edn, 4500 NO ₃ - B	45	2.3	3.6
11	Iron as Fe,mg/l	APHA, 23rd Edn, 3111 B	0.3	<0.05	<0.05
12	Copper as Cu,mg/l	APHA, 23rd Edn, 3111 B & C	1.5	<0.05	<0.05
13	Manganese as Mn,mg/l	APHA, 23rd Edn, 3111 B	0.3	<0.03	<0.03
14	Phenolic Compounds C ₆ H ₅ OH, mg/l	APHA, 23rd Edn, 5530 D	0.002	<0.002	<0.002
15	Zinc as Zn, mg/l	APHA, 23rd Edn, 3111 B & C	15.0	<0.01	<0.01
16	Cadmium as Cd, mg/l	APHA, 23rd Edn, 3111 B & C	0.003	<0.003	<0.003
17	Arsenic as As, mg/l	APHA, 23rd Edn, 3120 B	0.05	<0.05	<0.05
18	Cyanide as CN, mg/l	APHA, 23rd Edn, 4500 E	0.05	<0.05	<0.05
19	Lead as pb	--	-	<0.01	<0.01
20	Fluoride as F, mg/l	APHA, 23rd Edn, 4500 F – D	1.5	0.242	0.210
21	Total Dissolved solids (mg/l)	IS :3025, P-16, RA-2012	2000	64	50
22	Aluminium as Al mg/l	APHA 23rd Edn 3500 Al-B	0.2	<0.2	<0.2
23	Boron as B mg/l	APHA 23rd Edn 4500 B-B	1.0	<1.0	<1.0
24	Mercury as Hg, mg/l	IS 3025, P-48, Mercury Analyser	0.001	<0.001	<0.001
25	Turbidity (NTU)	IS 3025 (P-10), R.A. 2006	5	<1.0	5.0
26	Total Chromium as Cr ⁺⁺ , mg/l	APHA, 23rd Edn, 3500 B	0.05	<0.05	<0.05

Tested by

Authorised Signatory

A. CHATTERJEE

P. DUTTA (Technical Manager)

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GSTIN : 19AAECS3740C2ZJ



(An ISO 9001 : 2015 Certified)

TEST REPORT

Report No. N- 1052	Date: 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work-order no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	26.12..2023
Sub:	Water monitoring
Material:	Drinking Water.
Group:	Water

Date of starting of Test 26.12..2023

CHEMICAL REPORT

Date of completion of Test: 03.01.2024

Sl. No.	Specific Test Performed	Test Method	Permissible limit IS:10500/ 2012 (max))	Test Result	
				GW1 Ganua camp Bore well Date of Collection 14.12.2023	GW2 Ganua camp Dug Well Date of Collection 14.12.2023
27	Temperature °C	APHA, 23rd Edn, 2550 B	-	16 °C	16 °C
28	Mineral oil ,mg/l	IS :3025,P-39, R.A 2009	0.5	<0.5	<0.5
29	Odour	IS 3025 (P-06), R.A. 1983	Agreeable	Agreeable	Agreeable
30	Taste	IS 3025 (P-07), R.A. 1984	Agreeable	Agreeable	Agreeable

Tested by:

A. CHATTERJEE

Authorised Signatory

P. Dutta (Technical Manager)

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TEST REPORT

Report No. N- 1052	Date: 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work-order no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	26.12..2023
Sub:	Water monitoring
Material:	Drinking Water.

TEST RESULT OF BACTERIOLOGICAL

Date of starting of Test: 27.12..2023

Date of completion of Test: 03.01.2024

Sl. No.	Specific Test Performed	Test Method	Permissible Limits as per 10500:2012	Test Result	
				GW1 Gana camp Bore well	GW2 Gana camp Dug Well
				Date of Collection 14.12.2023	Date of Collection 14.12.2023
1	Coliform Organism / 100 ml.	As per IS: 1622-81	Shall not be detectable in 100 ml sample	Not found / 100ml	Not found / 100ml
2	E. Coli / 100ml.		Shall not be detectable in 100 ml sample	Not found / 100ml	Not found / 100ml

Tested by:

R Dasgupta H. Ray

Authorised Signatory

P. Dutta (Technical Manager)

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Annexure-4

भारत सरकार
जल शक्ति मंत्रालय
जल संसाधन, नदी विकास
और गंगा संरक्षण विभाग
केन्द्रीय भूमि जल प्राधिकरण
Government of India
Ministry of Jal Shakti
Department of Water Resources,
River Development & Ganga Rejuvenation
Central Ground Water Authority

(भूजल निकासी हेतु अनापत्ति प्रमाण पत्र)

NO OBJECTION CERTIFICATE (NOC) FOR GROUND WATER ABSTRACTION

Project Name:	Patabeda Iron And Manganese Mines(19.425 Ha) Of M/s. M. G. Mohanty		
Project Address:	At - Patabeda, P.o.- Malda, Sub-division Bonai		
Village:	Patbeda	Block:	Koida
District:	Sundargarh	State:	Odisha
Pin Code:			
Communication Address:	R. L. Mohanty, M. G. Mohanty, Mines Owner, 5-a, Forest Park, Bhubaneswar, Bhubaneswar, Khordha, Odisha - 751009		
Address of CGWB Regional Office :	Central Ground Water Board South Eastern Region, Bhujal Bhawan, Khandagiri Square, Nh-5, Bhubaneshwar, Khordha, Odisha - 750001		

1.	NOC No.:	CGWA/NOC/MIN/REN/2/2022/7299													
2.	Application No.:	21-4/1901/OR/MIN/2018					3.	Category: (GWRE 2020)			Safe				
4.	Project Status:	Existing With Additional Ground Water Requirment					5.	NOC Type:			Renewal				
6.	Valid from:	11/12/2022					7.	Valid up to:			10/12/2024				
8.	Ground Water Abstraction Permitted:														
Fresh Water		Saline Water				Dewatering				Total					
m³/day		m³/year		m³/day		m³/year		m³/day		m³/year		m³/day		m³/year	
30.00		10250.00													
9.	Details of ground water abstraction /Dewatering structures														
Total Existing No.:1							Total Proposed No.:1								
		DW	DCB	BW	TW	MP	MPu	DW	DCB	BW	TW	MP	MPu		
Abstraction Structure*		0	0	1	0	0	0	0	0	1	0	0	0		
*DW- Dug Well; DCB-Dug-cum-Bore Well; BW-Bore Well; TW-Tube Well; MP-Mine Pit;MPu-Mine Pumps															
10.	Ground Water Abstraction/Restoration Charges paid (Rs.):							10250.00							
11.	Number of Piezometers(Observation wells) to be constructed/ monitored & Monitoring mechanism.					No. of Piezometers		Monitoring Mechanism							
							Manual		DWLR**		DWLR With Telemetry				
**DWLR - Digital Water Level Recorder					1		1		0		0				

(Compliance Conditions given overleaf)

This is an auto generated document & need not to be signed.

18/11, जामनगर हाउस, मानसिंह रोड, नई दिल्ली - 110011 / 18/11, Jamnagar House, Mansingh Road, New Delhi-110011

Phone: (011) 23383561 Fax: 23382051, 23386743

Website: cgwa-noc.gov.in

पानी बचाये - जीवन बचाये
SAVE WATER - SAVE LIFE

Validity of this NOC shall be subject to compliance of the following conditions:

Mandatory conditions:

- 1) Installation of tamper proof digital water flow meter with telemetry on all the abstraction structure(s) shall be mandatory for all users seeking No Objection Certificate and intimation regarding their installation shall be communicated to the CGWA within 30 days of grant of No Objection Certificate.
- 2) Proponents shall mandatorily get water flow meter calibrated from an authorized agency once in a year.
- 3) Construction of purpose-built observation wells (piezometers) for ground water level monitoring shall be mandatory as per Section 14 of Guidelines. Water level data shall be made available to CGWA through web portal. Detailed guidelines for construction of piezometers are given in Annexure-II of the guidelines.
- 4) Proponents shall monitor quality of ground water from the abstraction structure(s) once in a year. Water samples from bore wells/ tube wells / dug wells shall be collected during April/May every year and analysed in NABL accredited laboratories for basic parameters (cations and anions), heavy metals, pesticides/ organic compounds etc. Water quality data shall be made available to CGWA through the web portal.
- 5) In case of mining projects, additional key wells shall be established in consultation with the Regional Director, CGWB for ground water level monitoring four (4) times a year (January, May, August and November) in core as well as buffer zones of the mine.
- 6) In case of mining project the firm shall submit water quality report of mine discharge/ seepage from Govt. approved/ NABL accredited lab.
- 7) The firm shall report compliance of the NOC conditions online in the website (www.cgwa-noc.gov.in) within one year from the date of issue of this NOC.
- 8) Industries abstracting ground water in excess of 100 m³/d shall undertake annual water audit through certified auditors and submit audit reports within three months of completion of the same to CGWA. All such industries shall be required to reduce their ground water use by at least 20% over the next three years through appropriate means.
- 9) Application for renewal can be submitted online from 90 days before the expiry of NOC. Ground water withdrawal, if any, after expiry of NOC shall be illegal & liable for legal action as per provisions of Environment (Protection) Act, 1986.
- 10) This NOC is subject to prevailing Central/State Government rules/laws/norms or Court orders related to construction of tube well/ground water abstraction structure / recharge or conservation structure/discharge of effluents or any such matter as applicable.

General conditions:

- 11) No additional ground water abstraction and/or de-watering structures shall be constructed for this purpose without prior approval of the Central Ground Water Authority (CGWA).
- 12) The proponent shall seek prior permission from CGWA for any increase in quantum of groundwater abstraction (more than that permitted in NOC for specific period).
- 13) Proponents shall install roof top rain water harvesting in the premise as per the existing building bye laws in the premise.
- 14) The project proponent shall take all necessary measures to prevent contamination of ground water in the premises failing which the firm shall be responsible for any consequences arising thereupon.
- 15) In case of industries that are likely to contaminate the ground water, no recharge measures shall be taken up by the firm inside the plant premises. The runoff generated from the rooftop shall be stored and put to beneficial use by the firm.
- 16) Wherever feasible, requirement of water for greenbelt (horticulture) shall be met from recycled / treated waste water.
- 17) Wherever the NOC is for abstraction of saline water and the existing wells (s) is /are yielding fresh water, the same shall be sealed and new tubewell(s) tapping saline water zone shall be constructed within 3 months of the issuance of NOC. The firm shall also ensure safe disposal of saline residue, if any.
- 18) Unexpected variations in inflow of ground water into the mine pit, if any, shall be reported to the concerned Regional Director, Central Ground Water Board.
- 19) In case of violation of any NOC conditions, the applicant shall be liable to pay the penalties as per Section 16 of Guidelines.
- 20) This NOC does not absolve the proponents of their obligation / requirement to obtain other statutory and administrative clearances from appropriate authorities.
- 21) The issue of this NOC does not imply that other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would consider the project on merits and take decisions independently of the NOC.
- 22) In case of change of ownership, new owner of the industry will have to apply for incorporation of necessary changes in the No Objection Certificate with documentary proof within 60 days of taking over possession of the premises.
- 23) This NOC is being issued without any prejudice to the directions of the Hon'ble NGT/court orders in cases related to ground water or any other related matters.
- 24) Proponents, who have installed/constructed artificial recharge structures in compliance of the NOC granted to them previously and have availed rebate of upto 50% (fifty percent) in the ground water abstraction charges/ground water restoration charges, shall continue to regularly maintain artificial recharge structures.
- 25) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, pharmaceutical, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution as per Annexure III of the guidelines.
- 26) In case of new infrastructure projects having ground water abstraction of more than 20 m³/day, the firm/entity shall ensure implementation of dual water supply system in the projects.
- 27) In case of infrastructure projects, paved/parking area must be covered with interlocking/perforated tiles or other suitable measures to ensure groundwater infiltration/harvesting.
- 28) In case of coal and other base metal mining projects, the project proponent shall use the advance dewatering technology (by construction of series of dewatering abstraction structures) to avoid contamination of surface water.
- 29) The NOC issued is conditional subject to the conditions mentioned in the Public notice dated 27.01.2021 failing which penalty/EC/cancellation of NOC shall be imposed as the case may be.
- 30) This NOC is issued subject to the clearance of Expert Appraisal Committee (EAC) (if applicable).

(Non-compliance of the conditions mentioned above is likely to result in the cancellation of NOC and legal action against the proponent.)



CONSENT ORDER
PATABEDA IRON ORE MINE OF M/S. M. G. MOHANTY

BY REGD. POST WITH AD

STATE POLLUTION CONTROL BOARD, ODISHA

A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012

Phone-2561909, Fax: 2562822, 2560955 E-mail: paribesh1@ospcboard.org, Website: www.ospcboard.org

CONSENT ORDER

No. 4507 / IND-I-CON- 2402

Dt. 19.03.2021 /

CONSENT ORDER NO. 881

Sub : Consent for discharge of sewage and trade effluent under section 25/26 of Water (PCP) Act, 1974 and for existing / new operation of the plant under section 21 of Air (PCP) Act, 1981.

Ref : Your online application No. 3360722 Dated 28-01-2021 and Online reply dated 20.2.2021

Consent to operate is hereby granted under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act, 1981 and rules framed thereunder to

Name of the Industry: PATABEDA IRON & MANGANESE MINE (19.425 HA) OF M/S. M. G. MOHANTY.

Name of the Occupier & Designation: SRI R. L. MOHANTY, MANAGING PARTNER

Address: AT: PATABEDA, PO – MALDA, DIST: SUNDARGARH

This consent order is valid for the period up to 31.03.2026 from the date of issue of this order.

This consent order supersedes the earlier consent order issued vide letter No. 10218 dated 30.09.2019.

Details of Products Manufactured

Sl. No	Product	Quantity
01.	Iron Ore	0.18 MTPA

Details of Mineral Handling Plants /Units

01	Operation of stationery crushing & screening plant of capacity 1 x 120 TPH
02	Operation of mobile Screening plant of capacity 1 x 250 TPH

This consent order is valid for the specified outlets, discharge quantity and quality, specified chimney/stack, emission quantity and quality of emissions as specified below. This consent is granted subject to the general and special conditions stipulated therein.



CONSENT ORDER
PATABEDA IRON ORE MINE OF M/S. M. G. MOHANTY

A. Discharge permitted through the following outlet subject to the standard

Outlet No.	Description of outlet	Point of discharge	Quantity of discharge KL/hr	Pre-scribed Standard			
				pH	TSS (mg/l)	Oil & Grease (mg/l)	BOD (mg/l)
01	Septic tank (Domestic effluent)	Soak pit	--	5.5-9.0	200	--	100
02	Mine drainage water/ surface runoff/ other wastewater	On land/Inland surface water body	3913 (Monsoon period)	5.5-9.0	100 (Rainy day)	10	--
					50 (Non-Rainy day)		

B. Fugitive Emission Standards

Particulate Matter	1200 $\mu\text{g}/\text{m}^3$
Note : Fugitive emission shall be monitored in the predominant downwind direction at a distance 25.0 $\pm$ 2.0 metres from the source of fugitive emission as per following :	
Area	Monitoring Location
Mine face / Benches	Drilling, excavation and loading applicable for operating benches above water table
Haul Roads/ Service Roads	Haul roads to ore processing plant, waste dumps and loading areas and service road.
Crushing plant	Run-off mine unloading at hopper, crushing areas, screens and transfer points.
Screening plant	Screens, conveying and transportation of ore discharge points.
Ore storage and loading	Intermediate stock bin / pile areas, ore stock bin / pile areas, wagon / truck loading areas.
Waste dump	Active waste / reject dumps

C. Disposal of solid waste permitted in the following manner

Sl. No.	Type of Solid waste	Quantity generated (TPD)	Quantity to be reused on site(TPD)	Quantity to be reused off site(TPD)	Quantity disposed off (TPD)	Description of disposal site.
01	Top soil & over burden	As per approved mining plan	--	--	--	As per approved mining plan



CONSENT ORDER
PATABEDA IRON ORE MINE OF M/S. M. G. MOHANTY

D. GENERAL CONDITIONS FOR ALL UNITS

1. The consent is given by the Board in consideration of the particulars given in the application. Any change or alternation or deviation made in actual practice from the particulars furnished in the application will also be the ground liable for review/variation/revocation of the consent order under section 27 of the Act of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 and to make such variations as deemed fit for the purpose of the Acts.
2. The industry would immediately submit revised application for consent to operate to this Board in the event of any change in the quantity and quality of raw material / and products / manufacturing process or quantity /quality of the effluent rate of emission / air pollution control equipment / system etc.
3. The applicant shall not change or alter either the quality or quantity or the rate of discharge or temperature or the route of discharge without the previous written permission of the Board.
4. The application shall comply with and carry out the directives/orders issued by the Board in this consent order and at all subsequent times without any negligence on his part. In case of non-compliance of any order/directives issued at any time and/or violation of the terms and conditions of this consent order, the applicant shall be liable for legal action as per the provisions of the Law/Act.
5. The applicant shall make an application for grant of fresh consent at least 90 days before the date of expiry of this consent order.
6. The issuance of this consent does not convey any property right in either real or personal property or any exclusive privileges nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State laws or regulation.
7. This consent does not authorize or approve the construction of any physical structure or facilities or the undertaking of any work in any natural water course.
8. The applicant shall display this consent granted to him in a prominent place for perusal of the public and inspecting officers of this Board.
9. An inspection book shall be opened and made available to Board's Officers during the visit to the factory.
10. The applicant shall furnish to the visiting officer of the Board any information regarding the construction, installation or operation of the plant or of effluent treatment system / air pollution control system / stack monitoring system any other particulars as may be pertinent to preventing and controlling pollution of Water / Air.
11. Meters must be affixed at the entrance of the water supply connection so that such meters are easily accessible for inspection and maintenance and for other purposes of the Act provided that the place where it is affixed shall in no case be at a point before which water has been tapped by the consumer for utilization for any purposes whatsoever.
12. Separate meters with necessary pipe-line for assessing the quantity of water used for each of the purposes mentioned below:
 - a) Industrial cooling, spraying in mine pits or boiler feed,
 - b) Domestic purpose
 - c) Process
13. The applicant shall display suitable caution board at the place where the effluent is entering into any water-body or any other place to be indicated by the Board, indicating therein that the area into which the effluents are being discharged is not fit for the domestic use/bathing.
14. Storm water shall not be allowed to mix with the trade and/or domestic effluent on the upstream of the terminal manholes where the flow measuring devices will be installed.
15. The applicant shall maintain good house-keeping both within the factory and the premises. All pipes, valves, sewers and drains shall be leak-proof. Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas.
16. The applicant shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems install or used by him to achieve with the term(s) and conditions of the consent.
17. Care should be taken to keep the anaerobic lagoons, if any, biologically active and not utilized as mere stagnation ponds. The anaerobic lagoons should be fed with the required nutrients for effective digestion. Lagoons should be constructed with sides and bottom made impervious.
18. The utilization of treated effluent on factory's own land, if any, should be completed and there should be no possibility of the effluent gaining access into any drainage channel or other water courses either directly or by overflow.
19. The effluent disposal on land, if any, should be done without creating any nuisance to the surroundings or inundation of the lands at any time.
20. If at any time the disposal of treated effluent on land becomes incomplete or unsatisfactory or create any problem or becomes a matter of dispute, the industry must adopt alternate satisfactory treatment and disposal measures.
21. The sludge from treatment units shall be dried in sludge drying beds and the drained liquid shall be taken to equalization tank.
22. The effluent treatment units and disposal measures shall become operative at the time of commencement of production.
23. The applicant shall provide port holes for sampling the emissions and access platform for carrying out stack sampling and provide electrical outlet points and other arrangements for chimneys/stacks and other sources of emissions so as to collect samples of emission by the Board or the applicant at any time in accordance with the provision of the Act or Rules made therein.
24. The applicant shall provide all facilities and render required assistance to the Board staff for collection of samples / stack monitoring / inspection.
25. The applicant shall not change or alter either the quality or quantity or rate of emission or install, replace or alter the air pollution control equipment or change the raw material or manufacturing process resulting in any change in quality and/or quantity of emissions, without the previous written permission of the Board.
26. No control equipments or chimney shall be altered or replaced or as the case may be erected or re-erected except with the previous approval of the Board.



CONSENT ORDER
PATABEDA IRON ORE MINE OF M/S. M. G. MOHANTY

27. The liquid effluent arising out of the operation of the air pollution control equipment shall be treated in the manner and to ion of standards prescribed by the Board in accordance with the provisions of Water (Prevention and Control of Pollution) Act, 1974 (as amended).
28. The stack monitoring system employed by the applicant shall be opened for inspection to this Board at any time.
29. There shall not be any fugitive or episodal discharge from the premises.
30. In case of such episodal discharge/emissions the industry shall take immediate action to bring down the emission within the limits prescribed by the Board in conditions/stop the operation of the plant. Report of such accidental discharge /emission shall be brought to the notice of the Board within 24 hours of occurrence.
31. The applicant shall keep the premises of the industrial plant and air pollution control equipments clean and make all hoods, pipes, valves, stacks/chimneys leak proof. The air pollution control equipments, location, inspection chambers, sampling port holes shall be made easily accessible at all times.
32. Any upset condition in any of the plant/plants of the factory which is likely to result in increased effluent discharge/emission of air pollutants and / or result in violation of the standards mentioned above shall be reported to the Headquarters and Regional Office of the Board by fax / speed post within 24 hours of its occurrence.
33. The industry has to ensure that minimum three varieties of trees are planted at the density of not less than 1000 trees per acre. The trees may be planted along boundaries of the industries or industrial premises. This plantation is stipulated over and above the bulk plantation of trees in that area.
34. The solid waste such as sweeping, wastage packages, empty containers residues, sludge including that from air pollution control equipments collected within the premises of the industrial plants shall be disposed off scientifically to the satisfaction of the Board, so as no to cause fugitive emission, dust problems through leaching etc., of any kind.
35. All solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board by :
 - i) Land fill in case of inert material, care being taken to ensure that the material does not give rise to leachate which may percolate into ground water or carried away with storm run-off.
 - ii) Controlled incineration, wherever possible in case of combustible organic material.
 - iii) Composting, in case of bio-degradable material.
36. Any toxic material shall be detoxicated if possible, otherwise be sealed in steel drums and buried in protected areas after obtaining approval of this Board in writing. The detoxication or sealing and burying shall be carried out in the presence of Board's authorized persons only. Letter of authorization shall be obtained for handling and disposal of hazardous wastes.
37. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above requires variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard, vary all or any of such condition and thereupon the applicant shall be bound to comply with the conditions so varied.
38. The applicant, his/heirs/legal representatives or assignees shall have no claim whatsoever to the condition or renewal of this consent after the expiry period of this consent.
39. The Board reserves the right to review, impose additional conditions or condition, revoke change or alter the terms and conditions of this consent.
40. Notwithstanding anything contained in this conditional letter of consent, the Board hereby reserves to it the right and power under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 to review any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Act by the Board.
41. The conditions imposed as above shall continue to be in force until revoked under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 and section 21 A of Air (Prevention & Control of Pollution) Act, 1981.
42. In case the consent fee is revised upward during this period, the industry shall pay the differential fees to the Board (for the remaining years) to keep the consent order in force. If they fail to pay the amount within the period stipulated by the Board the consent order will be revoked without prior notice.
43. The Board reserves the right to revoke/refuse consent to operate at any time during period for which consent is granted in case any violation is observed and to modify/ stipulate additional conditions as deemed appropriate.

GENERAL CONDITIONS FOR UNITS WITH INVESTMENT OF MORE THAN Rs 50 CRORES, AND 17 CATEGORIES OF HIGHLY POLLUTING INDUSTRIES (RED A).

1. The applicant shall analyse the emissions every month for the parameters indicated in TABLE .B & C as mentioned in this order and shall furnish the report thereof to the Board by the 10th of the succeeding month.
2. The applicant shall provide and maintain at his own cost three ambient air quality monitoring stations for monitoring Suspended Particulate Matter, Sulphur Dioxide, Oxides of Nitrogen, Hydro-Carbon, Carbon-Monoxide and monitor the same once in a day/week/fortnight/month. The data collected shall be maintained in a register and a monthly extract be furnished to the Board.
3. The applicant shall provide and maintain at his own cost a meteorological station to collect the data on wind velocity, direction, temperature, humidity, rainfall, etc. and the daily reading shall be recorded and the extract sent to the Board once in a month.
4. The applicant shall forward the following information to the Member Secretary, State Pollution Control Board, Odisha, Bhubaneswar regularly.
 - a. Report of analysis of stack monitoring, ambient air quality monitoring meteorological data as required every month.
 - b. Progress on planting of trees quarterly.
5. The applicant shall install mechanical composite sampling equipment and continuous flow measuring / recording devices on the effluent drains of trade as well as domestic effluent. A record of daily discharge shall be maintained.



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PATABEDA IRON ORE MINE OF M/S. M. G. MOHANTY

6. The following information shall be forwarded to the Member Secretary on or before 10th of every month.

- a. Performance / progress of the treatment plant.
- b. Monthly statement of daily discharge of domestic and/or trade effluent.

7. **Non-compliance with effluent limitations**

- a) If for any reason the applicant does not comply with or is unable to comply with any effluent limitations specified in this consent, the applicant shall immediately notify the consent issuing authority by telephone and provide the consent issuing authority with the following information in writing within 5 days of such notification.
 - i) Causes of non-compliance
 - i) A description of the non-compliance discharge including its impact on the receiving waters.
 - ii) Anticipated time of continuance of non-compliance if expected to continue or if such condition has been corrected the duration or period of non-compliance.
 - iii) Steps taken by the applicant to reduce and eliminate the non-complying discharge and
 - iv) Steps to be taken by the applicant too prevent the condition of non-compliance.
- b) The applicant shall take all reasonable steps to minimize any adverse impact to natural waters resulting from non-compliance with any effluent limitation specified in this consent including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.
- c) Nothing in this consent shall be construed to relieve the applicant from civil or criminal penalties for non-compliance whether or not such non-compliance is due to factors beyond his control, such as break-down, electric failure, accident or natural disaster.

8. The applicant shall at his own cost get the effluent samples collected both before and after treatment and get them analysed at an approval laboratory every month for the parameters indicated in Part-D and shall submit in duplicate the report thereof to the Board.

9. The addition of various treatment chemicals should be done only with mechanical dosers and proper equipment for regulation of correct dosages determined daily and for proper uniform feeding. Crude practices such as dumping of chemicals in drains or sumps or trickling of acids or alkalies arbitrarily and utilizing poles for stirring etc. should not be resorted to.

10. In the disposal of treated effluent on land for irrigation, the industry shall keep in view of the need for;

Rotation of crops

Change of point of application of effluent on land

A portion of land kept fallow.

11. The adoption of these would avoid soil becoming sick or slate, the industry may ensure this in consultation with the Agriculture Department.

12. It is the sole responsibility of the industry to ensure that there are no complaints at any time from the royats in the surrounding areas as a result of discharge of sewage or trade effluent if any.

13. Proper housekeeping shall be maintained by a dedicated team.

14. The industry must constitute a team of responsible and technically qualified personnel who will ensure continuous operation of all pollution control devices round the clock (including night hours) and should be in a position to explain the status of operation of the pollution control measures to the inspecting officers of the Board at any point of time. The name of these persons with their contact telephone numbers shall be intimated to the concerned. Regional Officer and Head Office of the Board and in case of any change in the team it shall be intimated to the Board immediately.



E. SPECIAL CONDITIONS:

1. This consent order is subject to compliance of orders of the Hon'ble Supreme Court of India in the matter of W. P. (Civil) 114/2014.
 2. This consent order is subject to permission from Steel and Mines Department, Government of Odisha for continuing of mining operation.
 3. Mining operation is subject to availability of all other statutory clearances.
 4. Drills shall either be operated with dust extractors or equipped with water injection system to minimize dust generation in the work environment.
 5. Controlled blasting shall be practiced to minimize generation of dust and fly rocks.
 6. Regular water sprinkling shall be carried out in critical areas prone to air pollution such as around crushing and screening plant. Water sprinkling shall also be carried out on haul roads at frequent interval so that it should always remain in wet condition. Haulage roads shall be devoid of ruts and potholes and shall be maintained properly to avoid generation of dust during movement of vehicles.
 7. Mechanized wheel washing facility for the ore transport vehicles shall be provided at the exit point of the mine. The wheel washing facility shall be integrated with complete recirculation system.
 8. Dust suppression measures (preferably dry fog system) shall be provided at all appropriate places of mineral handling plants (crusher & screening plant). Loading and unloading areas including all the transfer points shall also have efficient dust suppression arrangements (dry fog system). These shall be properly maintained and operated.
 9. The vehicles carrying ore for transportation from the mine shall be covered with tarpaulin (both bottom & top).
 10. Regular water sprinkling on mineral transportation roads passing through the habitation area as well as other strategic point on the National Highway shall be done jointly by the mining lessees in consultation with the Regional Officer.
 11. Four Ambient Air Quality Monitoring Stations shall be established in core zone and buffer zone for monitoring of ambient air quality and location of the
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CONSENT ORDER
PATABEDA IRON ORE MINE OF M/S. M. G. MOHANTY

- stations shall be decided in consultation with the Regional Officer, State Pollution Control Board based on the metrological data, topographical features and environmentally and ecologically sensitive targets.
12. Fugitive Dust Emission Monitoring shall be carried out at the places as stated in Part-B of this order. The monitoring of ambient air quality and fugitive dust shall be carried out twice in a week (24 hourly) at a particular site and the consolidated data shall be submitted to the State Pollution Control Board, once in a year.
 13. The top soil generated shall be stored at earmarked site (s) only and stabilized with plantation or shall be used for land reclamation and plantation.
 14. The over burden generated during the course of mining shall be stacked at earmarked dump site (s) and stabilized with plantation or used for reclamation of excavated land followed by plantation.
 15. The project proponent shall ensure that no natural watercourse and / or water resources are obstructed due to any mining operations. In case of diversion of natural watercourse, this shall be done with prior permission of the competent authority.
 16. Check dams and check weirs shall be constructed at appropriate places of the mine lease area to prevent direct flow of runoff to nearby water bodies. The surface runoff water from the existing runoff management system shall meet the prescribed standards as stated in Part A of the consent order.
 17. Retention wall shall be constructed at the toe of topsoil dump and OB dump. Garland drain shall be constructed around topsoil dumps, over burden dumps and mineral stack yards terminating at settling pit to prevent direct disposal of runoff to nearby water bodies.
 18. Garland drain and sedimentation pit shall be de-silted after monsoon or as and when required. The runoff discharge quality from runoff management system shall meet the prescribed standards as stated in Part A of the consent order.
 19. Domestic effluents shall be treated in a sewage treatment plant (STP) and or shall be discharged to soak pit via septic tank constructed as BIS
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CONSENT ORDER
PATABEDA IRON ORE MINE OF M/S. M. G. MOHANTY

specification. The treated wastewater quality of STP shall remain within the following standards and shall be used for plantation:

pH	-	6.5 -9.0
TSS	-	<100 mg/l
BOD	-	30 mg/l
Fecal Coliform	-	<1000 MPN/100 ml.

20. ETP shall be provided for workshop and wastewater generated during mining operation, if any. The quality of the treated wastewater shall conform to the prescribed standard as stated in Part A of the consent order.
 21. Regular monitoring of water quality of upstream and downstream of surface water bodies existed if any within 5 Km shall be carried out once in every month and record shall be maintained and submitted to the State Pollution Control Board once in every year. Monitoring shall be carried out through MoEF& CC accredited laboratory.
 22. Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells. The monitoring should be done four times a year in pre-monsoon (April/May), monsoon (August), post-monsoon (November) and winter (January) seasons. Consolidated data thus collected should be submitted to the Board annually.
 23. The mine shall take necessary action for compliance with the air and water quality standards as stipulated in Part-A and Part-B of this order.
 24. Adequate measures shall be taken for control of noise levels below the following limits.

(6.00 AM - 9.00 PM) - Leq 75 dB(A)
(9.00PM - 6.00 AM) - Leq 70 dB(A)
 25. Ambient air quality monitoring data, noise monitoring data and water / wastewater quality monitoring data shall be electronically displayed at the entry point of the mine or at a suitable location of the mine.
 26. Plantation of trees shall be undertaken in the colony/ township, over top soil dumps, OB dumps, along the side of haul road and in other areas of the mines not being utilized for mining activities. The mine shall take up avenue
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CONSENT ORDER
PATABEDA IRON ORE MINE OF M/S. M. G. MOHANTY

plantation and plantation in nearby village areas in consultation with DFO/Horticulture Department. The plantation details shall be submitted to the Board before end of April every year.

27. A copy of the annual return (annual return submitted to IBM, Govt. of India/ Directorate of Mines, Govt. of Odisha) shall be submitted to this Board every year.
28. The environmental statement report for the financial year ending 31st March shall be submitted to the Board in form -V on or before 30th September every year.

(Signature)
19/09/21

**CHIEF ENV. ENGINEER
STATE POLLUTION CONTROL BOARD, ODISHA**

TO,

**SRI R. L. MOHANTY, MANAGING PARTNER
PATABEDA IRON AND MANGANESE MINES (19.425 HA) OF
M/S. M. G. MOHANTY
2A, FOREST PARK,
BHUBANESWAR, PIN: 751009**

Memo No. _____ /Dt. _____ /

Copy forwarded to :

- i) Regional Officer, State Pollution Control Board, **Rourkela**
- ii) District Collector, **Sundargarh**
- iii) Director of Mines, Govt. of Odisha, Bhubaneswar
- iv) Director, Environment-cum-Special Secretary, F & E. Dept. Govt. of Odisha, Bhubaneswar.
- v) D.F.O, **Bonai**
- vi) Deputy Director of Mines, **Koira**
- vii) Chief Env. Engineer (C), (Hazardous waste management cell)
- viii) Chief Env. Scientist, Central Lab. SPCB, Bhubaneswar
- ix) Consent Register

**SR. ENV. ENGINEER (L-I)
STATE POLLUTION CONTROL BOARD, ODISHA**



CONSENT ORDER
PATABEDA IRON ORE MINE OF M/S. M. G. MOHANTY

GENERAL STANDARDS FOR DISCHARGE OF ENVIRONMENTAL POLLUTANTS



CONSENT ORDER
PATABEDA IRON ORE MINE OF M/S. M. G. MOHANTY

**GENERAL STANDARDS FOR DISCHARGE OF
ENVIRONMENTAL POLLUTANTS PART –A : EFFLUENTS**

Sl.No.	Parameters	Standards			
		Inland surface	Public sewers	Land for irrigation	Marine Costal Areas
		(a)	(b)	(c)	(d)
1.	Colour&odour	Colourless/Odourless as far as practicable	-----	See 6 of Annex-1	See 6 of Annex-1
2.	Suspended Solids (mg/l)	100	600	200	For process wastewater – 100 b. For cooling water effluent 10% above total suspended matter of influent.
3.	Particular size of SS	Shall pass 850	-----	-----	
5.	pH value	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0
6.	Temperature	Shall not exceed 5°C above the receiving water temperature	-----	-----	Shall not exceed 5°C above the receiving water temperature
7.	Oil & Grease mg/l max.	10	20	10	20
8.	Total residual chlorine	1.0	-----	-----	1.0
9.	Ammonical nitrogen (as N) mg/l max.	50	50	-----	50
10.	Total Kjeldahl nitrogen (as NH ₃) mg/1 max.	100	-----	-----	100
11.	Free ammonia (as NH ₃) mg/1 max.	5.0	-----	-----	5.0
12.	Biochemical Oxygen Demand (5 days at 20°C) mg/1 max.	30	350	100	100
13.	Chemical Oxygen Demand, mg/1 max.	250	-----	-----	250
14.	Arsenic (as As) mg/1 max.	0.2	0.2	0.2	0.2
15.	Mercury (as Hg) mg/1 max.	0.01	0.01	-----	0.001
16.	Lead (as pb) mg/1 max.	01.	1.0	-----	2.0



CONSENT ORDER
PATABEDA IRON ORE MINE OF M/S. M. G. MOHANTY

17.	Cadmium (as Cd) mg/l max.	2.0	1.0	-----	2.0
18.	Hexavalent Chromium (as Cr + 6) mg/l max.	0.1	2.0	-----	1.0
19.	Total Chromium (as Cr) mg/l max.	2.0	2.0	-----	2.0
20.	Copper (as Cu) mg/l max.	3.0	3.0	-----	3.0
21.	Zinc (as Zn) mg/l max.	5.0	15	-----	15
22.	Selenium (as Se) mg/l max.	0.05	0.05	-----	0.05
23.	Nickel (as Ni) mg/l max.	3.0	3.0	-----	5.0
24.	Cyanide (as CN) mg/l max.	0.2	2.0	0.2	0.02
25.	Fluoride (as F) mg/l max.	2.0	15	-----	15
26.	Dissolved Phosphates (as P) mg/l max.	5.0	-----	-----	-----
27.	Sulphide (as S) mg/l max.	2.0	-----	-----	5.0
28.	Phenolic compounds as (C ₆ H ₅ OH) mg/l max.	1.0	5.0	-----	5.0
29.	Radioactive materials a. Alpha emitter micro curie/ml. b. Beta emitter micro curie/ml.	10 ⁷ 10 ⁶	10 ⁷ 10 ⁶	10 ⁸ 10 ⁷	10 ⁷ 10 ⁶
30.	Bio-assay test	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent
31.	Manganese (as Mn)	2 mg/l	2 mg/l	-----	2 mg/l
32.	Iron (Fe)	3 mg/l	3 mg/l	-----	3 mg/l
33.	Vanadium (as V)	0.2 mg/l	0.2 mg/l	-----	0.2 mg/l
34.	Nitrate Nitrogen	10 mg/l	-----	-----	20 mg/l



CONSENT ORDER
PATABEDA IRON ORE MINE OF M/S. M. G. MOHANTY

NATIONAL AMBIENT AIR QUALITY STANDARDS

Sl. No.	Pollutants	Time Weighed Average	Concentrate of Ambient Air		
			Industrial Residential, Rural and other Area	Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement
(1)	(2)	(3)	(4)	(5)	(6)
1.	Sulphur Dioxide (SO ₂), µg/m ³	Annual *	50	20	-Improved west and Gaeke
		24 Hours **	80	80	- Ultraviolet fluorescence
2.	Nitrogen Dioxide (NO ₂), µg/m ³	Annual *	40	30	- Modified Jacob & Hochheiser (Na-Arsenite)
		24 Hours **	80	80	- Chemiluminescence
3.	Particulate Matter (size less than 10µm) or PM ₁₀ µg/m ³	Annual *	60	60	-Gravimetric
		24 Hours **	100	100	- TOEM
4.	Particulate Matter (size less than 2.5µm) or PM _{2.5} µg/m ³	Annual *	40	40	- Beta Attenuation
		24 Hours **	60	60	- Gravimetric
5.	Ozone (O ₃) µg/m ³	8 Hours **	100	100	- TOEM
		1 Hours **	180	180	- Beta Attenuation
6.	Lead (Pb) µg/m ³	Annual *	0.50	0.50	- UV Photometric
		24 Hours **	1.0	1.0	- Chemiluminescence
7.	Carbon Monoxide (CO) mg/m ³	8 Hours **	02	02	- Chemical Method
		1 Hours **	04	04	- AAS/ICP method after sampling on EMP 2000 or equivalent filter paper.
8.	Ammonia (NH ₃) µg/m ³	Annual*	100	100	- ED-XRF using Teflon filter
		24 Hours**	400	400	- Non Dispersive Infra Red (NDIR)
9.	Benzene (C ₆ H ₆) µg/m ³	Annul *	05	05	Spectroscopy
10.	Benzo (a) Pyrene (BaP)-Particulate phase only, ng/m ³	Annual*	01	01	-Chemiluminescence
11.	Arsenic (As), ng/m ³	Annual*	06	06	- Indophenol Blue Method
12.	Nickel (Ni), ng/m ³	Annual*	20	20	-Gas Chromatography based continuous analyzer
					- Adsorption and Desorption followed by GC analysis
					-Solvent extraction followed by HPLC/GC analysis
					-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
					-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper

** Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

** 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year, 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

Annexure-6

Messrs M. G. Mohanty
Mine Owners

Corporate Office :
5A, Forest Park
Bhubaneswar - 751009, INDIA
Ph. : + 91-674-2596400 / 2596410
Fax : + 91-674-2596390

Mines Administrative Branch Office :
At/Po.: Barbil, Orissa - 758 035, INDIA
Phone : + 91-6767-275318, 276319
Fax : + 91-6767-275770

E-mail : mgmm@vsnl.com
: mgmm@sanchamail.in

MGM/CO/2009-10/07-129
9th July 2009.

Annexure - 7

Divisional Forest Officer
Bonai Division,
At/Po- Bonaigarh,
Dist- Sundargarh.

Sub: Provisional site specification of wild life conservation plan of
Patabeda Iron and Manganese mines by M/s. M. G. Mohanty.

Ref: Your letter No. 10355/9F (MG) - 127/2007 dtd. 08.07.2009.

Sir,

With reference to the subject cited above we are depositing herewith a Demand Draft bearing No.016812 dtd.09.07.2009 for Rs. 15,00,000.00 (Rupees Fifteen Lakhs) only, in favour of Compensatory Afforestation Fund (CAF), Orissa account number CA 1585 in Corporation Bank, Lodhi Road, New Delhi, Payable at New Delhi. This is towards the cost of the site specific wild life conservation plan of Patabeda Iron and Manganese mines of M/s. M. G. Mohanty as per the approved scheme.

This may kindly intimated to the C.C.F (Nodal), Bhubaneswar from your end.

Thanking you,

Yours faithfully,
For M/s. M. G. Mohanty


P. L. Mohanty
Partner

Regd. Office : 2A, Forest Park, Bhubaneswar - 751009, INDIA, Fax : + 91-674 - 2596370



SUPERINTENDENCE CO. OF INDIA (P) LTD.

**ENVIRONMENTAL BASELINE DATA GENERATION
AT**

M/S – M.G.MOHANTY

PROJECT: Patabeda Iron & Manganese Mines (19.425 Ha)

Work Order no.: MGM/WO/2023/24/11-164

Dated: 28/11/2023

**NAME OF WORK:
ENVIRONMENTAL MONITORING**

**REPORT
FOR THE MONTH OF MARCH 2024**

REPORT SUBMITTED BY:

SUPERINTENDENCE CO. OF INDIA (P) LTD

Y-23, Block EP, Sector V, Salt Lake City-7000 91

Ph. No. : (033) - 2357-1492/4670/4671/4681

Fax: 033- 2357-4806

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Website: www.superintendence.co



SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

(An ISO 9001 : 2015 Certified)

Regional office : Plot No. Y-23, Block-EP, Sector-V, Salt Lake City, Kolkata-700 091, Phone : (033) 2357-4671/4681/4873/5039/5042
Fax : (033) 2357-4806, E-mail : supind2019@gmail.com, supind50@yahoo.co.in, Website : www.superintendencecoindia.com

Ref.: SUENV/ M.G. MOHANTY (19.425 Ha)/SP/KB /357

Date: 15.04.2024

To
The Mines Manager,
M/s. M.G. Mohanty.
Patabeda Iron Mines (19.425 Ha)
Patabeda, P.O. Malda, P.S. Koira,
Dist.: Sundergarh, Odisha

Sub: Submission of Test Report for the Month of **MARCH 2024**

Work Order no.: MGM/WO/2023/24/11-164

Dated:28/11/2023

Dear Sir,

We are submitting herewith test reports for the month of **MARCH 2024**
as follows:

- Ambient Air Monitoring (5 Parameters).
- Fugitive Dust
- Noise Monitoring
- Ground Water Quality
- Surface Water Quality
- ETP & STP out let Treated Water

Thanking you,

With Regards,

Superintendence Co. of India (P) Ltd.

S. Paul
(ADDL DIRECTOR)

Encl: as above



TC-8066

TEST REPORT

REPORT NO. : N- 1492	ULR-TC80662400000488F	DATE – 12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	22.03.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test 26.03.2024	CHEMICAL TEST RESULT	Date of completion of Test 02.04.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)
				Sampling Collection Date							
				01.03.24	02.03.24	03.03.24	04.03.24	05.03.24	06.03.24	07.03.24	08.03.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	41.35	38.62	43.62	40.26	37.81	42.35	39.41	36.75
02	Particulate Matter (PM ₁₀) (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	70.52	66.75	76.85	71.58	68.05	74.12	69.23	67.34
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	14.35	12.50	15.76	13.42	12.46	15.70	13.67	11.42
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6, 2006, RA-2017	80 (µg/m ³) 24 Hrs.	21.06	18.12	20.91	19.06	17.05	2218	19.94	16.05
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.04	1.10	0.93	1.04	1.08	1.12	0.94	1.01

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

Note : 1) This report refers to the values obtained at the time of testing and results relate to the items tested.
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GSTIN : 19AAECS3740C2ZJ



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TC-8066

TEST REPORT

REPORT NO. : N- 1492	ULR-TC806624000000488F	DATE -12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) <i>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha</i>	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	22.03.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 26.03.2024		
CHEMICAL TEST RESULT		
Date of completion of Test 02.04.2024		

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)
				Sampling Collection Date							
				09.03.24	10.03.24	11.03.24	12.03.24	13.03.24	14.03.24	15.03.24	16.03.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	41.28	36.21	42.67	40.24	39.58	43.57	41.35	40.17
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	72.56	70.84	75.83	71.52	69.41	75.02	72.88	71.39
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	14.27	12.32	13.45	11.76	10.23	13.83	12.67	14.82
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	22.34	18.51	19.39	17.67	16.34	18.72	19.76	22.56
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.89	1.04	0.92	0.89	1.06	0.98	1.02	0.94

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

TEST REPORT

REPORT NO. : N- 44	ULR-TC806624000000516F	DATE - 15.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	08.04.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test	08.04.2024	CHEMICAL TEST RESULT
		Date of completion of Test 13.04.2024

CHEMICAL TEST RESULT

Date of completion of Test 13.04.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)
				Sampling Collection Date							
				17.03.24	18.03.24	19.03.24	20.03.24	21.03.24	22.03.24	23.03.24	24.03.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	42.61	38.21	44.70	41.92	43.16	39.12	43.81	46.82
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	73.10	69.30	77.35	72.64	75.48	67.58	72.64	79.15
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	13.92	11.73	14.56	13.74	12.65	11.37	14.75	15.34
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART- 6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	19.45	17.86	21.84	18.32	16.84	17.43	23.91	24.63
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.02	1.04	0.96	1.10	1.05	1.04	0.95	0.92

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 44	ULR-TC806624000000516F	DATE - 15.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) <i>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha</i>	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	08.04.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: 08.04.2024 CHEMICAL TEST RESULT Date of completion of Test 13.04.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result						
				NAME OF STATIONS						
				AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)
				Sampling Collection Date						
				25.03.24	26.03.24	27.03.24	28.03.24	29.03.24	30.03.24	31.03.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	36.12	42.31	40.85	45.21	41.76	39.14	43.51
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	67.34	74.52	72.41	78.38	74.38	70.62	75.87
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	13.46	12.93	13.97	14.63	12.93	11.73	14.75
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	19.87	18.69	18.52	21.87	17.29	16.38	20.32
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.96	1.00	0.89	1.02	0.91	0.97	1.03

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TEST REPORT

REPORT NO. : N- 1492	ULR-TC806624000000488F	DATE -- 12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/VO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	22.03.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test 26.03.2024 CHEMICAL TEST RESULT Date of completion of Test **02.04.2024**

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)
				Sampling Collection Date							
				01.03.24	02.03.24	03.03.24	04.03.24	05.03.24	06.03.24	07.03.24	08.03.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	42.50	38.14	43.27	40.21	37.46	41.58	42.75	44.12
02	Particulate Matter (PM ₁₀) (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	73.48	69.72	75.13	70.63	68.17	72.96	74.29	78.67
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	13.21	11.25	14.89	12.75	11.82	12.47	14.30	15.76
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	19.87	17.59	21.38	18.34	17.24	18.64	22.15	24.58
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.95	1.02	0.87	0.90	0.93	1.01	0.87	0.92

Tested by:


A. Chatterjee

Authorized Signatory


P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1492	ULR-TC806624000000488F	DATE - 12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	22.03.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 26.03.2024	<u>CHEMICAL TEST RESULT</u>	Date of completion of Test 02.04.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)
				Sampling Collection Date							
				09.03.24	10.03.24	11.03.24	12.03.24	13.03.24	14.03.24	15.03.24	16.03.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	39.45	42.31	36.02	40.31	39.47	43.21	45.12	42.31
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	70.63	74.89	69.53	72.80	70.58	75.69	79.84	74.19
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	11.74	15.78	13.47	14.75	12.34	13.76	16.33	14.58
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART- 6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	18.38	22.54	19.26	24.13	20.83	21.47	25.48	24.30
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.89	0.96	0.82	0.85	0.92	1.01	0.95	0.89

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 44	ULR-TC806624000000516F	DATE -15.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) <i>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha</i>	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	08.04.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test 08.04.2024

CHEMICAL TEST RESULT

Date of completion of Test 13.04.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)
				Sampling Collection Date							
				17.03.24	18.03.24	19.03.24	20.03.24	21.03.24	22.03.24	23.03.24	24.03.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	41.85	39.48	45.16	40.72	45.10	43.12	36.21	41.63
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	72.89	69.17	79.21	71.45	78.38	75.36	67.18	73.71
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	13.76	12.85	15.39	13.62	14.76	12.47	11.35	13.92
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	19.24	18.52	24.96	20.86	21.94	18.53	17.54	19.27
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.02	1.14	0.98	1.03	1.10	0.96	1.03	1.06

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 44	ULR-TC806624000000516F	DATE - 15.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/VO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	08.04.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: 08.04.2024

CHEMICAL TEST RESULT

Date of completion of Test 13.04.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result						
				NAME OF STATIONS						
				AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)
				Sampling Collection Date						
				25.03.24	26.03.24	27.03.24	28.03.24	29.03.24	30.03.24	31.03.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	46.15	40.61	43.80	39.46	42.38	45.21	41.83
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	78.31	72.56	74.62	69.27	75.16	76.45	73.61
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	15.87	13.48	14.71	11.34	13.37	14.36	12.78
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART- 6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	24.53	20.35	22.59	17.83	19.62	21.54	18.29
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.01	0.98	1.10	1.02	1.03	0.86	0.92

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

LABORATORY :

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Website : www.superintendencecoindia.com

GSTIN : 19AAECS3740C2ZJ



(An ISO 9001 : 2015 Certified)



TC-8066

TEST REPORT

REPORT NO. : N- 1492	ULR-TC806624000000488F	DATE - 12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/VO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	22.03.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: 26.03.2024 CHEMICAL TEST RESULT Date of completion of Test **02.04.2024**

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)
				Sampling Collection Date							
				01.03.24	02.03.24	03.03.24	04.03.24	05.03.24	06.03.24	07.03.24	08.03.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	43.17	46.58	40.56	45.62	41.09	42.83	44.65	45.18
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	74.25	79.40	70.07	75.25	71.56	72.31	77.29	76.82
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	15.39	14.35	12.48	14.34	13.47	12.57	14.87	14.43
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	23.69	21.85	18.59	20.18	19.34	17.42	21.34	22.91
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.84	0.79	0.90	0.88	1.01	0.92	0.89	0.96

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1492	ULR-TC806624000000488F	DATE - 12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) <i>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha</i>	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	22.03.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 26.03.2024		
CHEMICAL TEST RESULT		
Date of completion of Test 02.04.2024		

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)
				Sampling Collection Date							
				09.03.24	10.03.24	11.03.24	12.03.24	13.03.24	14.03.24	15.03.24	16.03.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	47.58	42.15	46.52	45.17	48.15	43.21	44.26	39.18
02	Particulate Matter (PM ₁₀) (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	80.32	74.39	81.46	78.60	82.96	75.65	76.47	69.27
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	16.54	13.66	14.25	15.47	16.74	14.82	15.74	11.32
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	24.05	19.74	21.36	23.32	25.84	22.78	23.88	17.43
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.02	0.85	0.92	0.87	1.01	0.86	0.89	0.86

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 44	ULR-TC806624000000516F	DATE - 15.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/VO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	08.04.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: 08.04.2024 CHEMICAL TEST RESULT Date of completion of Test 13.04.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)
				Sampling Collection Date							
				17.03.24	18.03.24	19.03.24	20.03.24	21.03.24	22.03.24	23.03.24	24.03.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	43.81	36.27	42.50	40.81	44.85	41.98	44.26	40.71
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	74.65	87.36	72.42	70.75	76.56	73.14	75.37	71.52
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	13.79	10.82	14.39	13.70	14.27	13.52	14.63	13.95
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6, 2006, RA-2017	80 (µg/m ³) 24 Hrs.	19.58	16.74	21.38	20.34	22.83	19.05	22.89	21.64
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.79	0.93	0.82	0.88	0.96	0.94	1.02	0.89

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 44	ULR-TC806624000000516F	DATE - 15.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/VO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	08.04.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: 08.04.2024 CHEMICAL TEST RESULT Date of completion of Test 13.04.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result						
				NAME OF STATIONS						
				AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)
				Sampling Collection Date						
				25.03.24	26.03.24	27.03.24	28.03.24	29.03.24	30.03.24	31.03.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	40.17	36.54	42.71	41.35	45.19	43.15	39.16
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	70.31	65.23	73.59	71.92	79.56	75.34	69.28
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	12.80	11.38	13.26	12.81	14.24	13.72	12.54
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	18.45	17.82	19.87	18.73	22.92	20.45	28.26
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.96	1.10	0.95	0.80	0.91	1.02	0.98

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

TEST REPORT

REPORT NO. : N- 1492	ULR-TC806624000000488F	DATE - 12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/VO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	22.03.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: 26.03.2024 CHEMICAL TEST RESULT Date of completion of Test 02.04.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)
				Sampling Collection Date							
				01.03.24	02.03.24	03.03.24	04.03.24	05.03.24	06.03.24	07.03.24	08.03.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	46.17	42.71	48.35	43.52	49.75	45.61	50.18	47.12
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	78.30	73.19	84.21	74.26	85.39	79.23	86.57	82.98
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	16.25	14.36	17.83	15.67	18.48	16.34	19.45	17.27
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	25.42	23.43	26.74	24.83	25.86	24.75	28.69	26.54
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.43	1.38	1.44	1.26	1.42	1.38	1.29	1.31

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1492	ULR-TC806624000000488F	DATE - 12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/VO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	22.03.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 26.03.2024 CHEMICAL TEST RESULT Date of completion of Test 02.04.2024		

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)
				Sampling Collection Date							
				09.03.24	10.03.24	11.03.24	12.03.24	13.03.24	14.03.24	15.03.24	16.03.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	44.35	46.31	48.52	51.73	45.35	47.62	49.58	46.21
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	76.89	79.82	81.25	87.65	77.80	80.17	83.91	80.40
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	14.92	15.49	16.94	18.24	14.23	16.85	17.39	16.52
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	21.45	23.78	25.36	28.41	21.58	24.36	26.79	24.06
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.18	1.29	1.37	1.39	1.43	1.38	1.42	1.29

Tested by:

A. Chatterjee
A. Chatterjee

Authorized Signatory

P. Dutta
P. Dutta (Technical Manager)

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GSTIN : 19AAECS3740C2ZJ



TEST REPORT

REPORT NO. : N- 44	ULR-TC806624000000516F	DATE - 15.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) <i>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha</i>	
Work order No. and Date:	MGM/VO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	08.04.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 08.04.2024 CHEMICAL TEST RESULT Date of completion of Test 13.04.2024		

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)
				Sampling Collection Date							
				17.03.24	18.03.24	19.03.24	20.03.24	21.03.24	22.03.24	23.03.24	24.03.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	42.81	47.51	45.12	40.26	47.13	42.36	48.27	41.36
02	Particulate Matter (PM ₁₀) (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	76.23	85.48	79.53	74.31	84.05	76.85	86.12	73.82
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	14.35	17.27	15.97	13.28	16.54	15.70	18.39	14.78
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART- 6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	20.14	25.34	21.68	19.82	23.41	22.54	26.41	21.37
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.35	1.26	1.34	1.28	1.19	1.34	1.29	1.38

Tested by:

A. Chatterjee
A. Chatterjee

Authorized Signatory

P. Dutta
P. Dutta (Technical Manager)

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TC-8066

TEST REPORT

REPORT NO. : N- 44	ULR-TC806624000000516F	DATE -15.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/VO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	08.04.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test 08.04.2024 CHEMICAL TEST RESULT Date of completion of Test 13.04.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result						
				NAME OF STATIONS						
				AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)
				Sampling Collection Date						
				25.03.24	26.03.24	27.03.24	28.03.24	29.03.24	30.03.24	31.03.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	46.21	45.61	47.57	43.06	44.75	46.12	48.63
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	80.56	76.42	82.13	75.29	78.43	79.31	83.47
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	16.47	15.30	17.39	14.31	15.26	16.89	18.75
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	24.19	23.45	26.82	22.84	22.57	23.94	27.32
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.24	1.31	1.08	1.30	1.29	1.36	1.324

Tested by:

A. Chatterjee
A. Chatterjee

Authorized Signatory

P. Dutta
P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1492	ULR-TC806624000000488F	DATE - 12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) <i>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha</i>	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	22.03.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 26.03.2024 <u>CHEMICAL TEST RESULT</u> Date of completion of Test 02.04.2024		

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result	
				NAME OF STATIONS	
				AAQ-5 Ganua Camp (BZ)	AAQ-6 Guruda camp (BZ)
				Sampling Collection Date	
				04.03.24	11.03.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	36.51	39.82
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	58.43	62.19
03	Sulphur Dioxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	12.34	13.68
04	Nitrogen Dioxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	20.72	19.73
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.75	0.83

Tested by:


A. Chatterjee

Authorized Signatory


P. Dutta (Technical Manager)

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GSTIN : 19AAECS3740C2ZJ

TEST REPORT

Report No.: N- 45	ULR-TC806624000000517F	Date – 15.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY, Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work Order No. and Date	MGM/WO/2023/24/11-164	Dated: 28/11/2023
Date of Sample Received:	08.04.2024	
Sub:	Environment Monitoring	
Material:	Fugitive Dust Emission	
Group:	Atmospheric Pollution	

FUGITIVE DUST EMISSION MONITORING CHEMICAL TEST

Date of starting of test 12.04.2024

Date of completion of 13.04.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per OPCA	Test Result
				NAME OF STATIONS
				FD-1 Crusher Plant
				Sampling Collection Date
				18.03.2024
01	Particulate Matter (µg/m ³)	IS:5182, PART-4, 2006, RA-2012	1200 (µg/m ³)	814.6

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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GSTIN : 19AAECS3740C2ZJ



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TC-8066

TEST REPORT

ULR-TC806624000000493F

REPORT NO. : N - 1493	DATE - 12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Ref. no. and Date:	MGM/VO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	22.03.2024
Sub:	Environmental monitoring
Material:	Work zone Noise
Group:	Atmospheric Pollution

TEST REPORT

S. N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level		Location Details (core zone)			
1.	Equivalent Sound level dB(A) Leq	SUP/SO P/4033S D & IS:9989	Standard as per Noise Pollution Regulation Rule-2000		1 st Week			
			Category of area Zone	Limits in dB(A) Leq	N-1 Mines Quarry	N-2 Haul Road	N-3 D.G. Set	N-4 Crusher Plant
					06.02.2024	06.02.2024	06.02.2024	06.02.2024
					71.2	65.1	67.1	72.4
			1. Industrial	75				
			2. Commercial	65				
			3. Residential	55				
			4. Silent	50				

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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GSTIN : 19AAECS3740C2ZJ

TEST REPORT

ULR-TC806624000000493F	
REPORT NO. : N - 1493	DATE -- 12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Ref. no. and Date:	MGM/VO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	22.03.2024
Sub:	Environmental monitoring
Material:	Work zone Noise
Group:	Atmospheric Pollution

TEST REPORT

S. N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level		Location Details (core zone)			
					2 nd Week			
1.	Equivalent Sound level dB(A) Leq	SUP/SO P/4033S D & IS:9989	Standard as per Noise Pollution Regulation Rule-2000		N-1 Mines Quarry	N-2 Haul Road	N-3 D.G. Set	N-4 Crusher Plant
			Category of area Zone	Limits in dB(A) Leq	13.02.2024	13.02.2024	13.02.2024	13.02.2024
					70.1	68.5	71.0	72.3
			1. Industrial	75				
			2. Commercial	65				
			3. Residential	55				
			4. Silent	50				

Tested by:

A. Chatterjee

Authorized Signatory

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TC-8066

TEST REPORT

ULR-TC806624000000494F

REPORT NO. : N - 46	DATE - 12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Ref. no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	08.04.2024
Sub:	Environmental monitoring
Material:	Work zone Noise
Group:	Atmospheric Pollution

TEST REPORT

S. N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level		Location Details (core zone)			
1.	Equivalence Sound level dB(A) Leq	SUP/SO P/4033S D & IS:9989	Standard as per Noise Pollution Regulation Rule- 2000		3rd Week			
			Category of area Zone	Limits in dB(A) Leq	N-1 Mines Quarry	N-2 Haul Road	N-3 D.G. Set	N-4 Crusher Plant
					20.03.2024	20.03.2024	20.03.2024	20.03.2024
					70.5	69.4	70.3	71.1
			1. Industrial	75				
			2. Commercial	65				
			3. Residential	55				
			4. Silent	50				

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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GSTIN : 19AAECS3740C2ZJ



TC-8066

TEST REPORT

ULR-TC806624000000494F	
REPORT NO. : N - 46	DATE - 12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Ref. no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	08.04.2024
Sub:	Environmental monitoring
Material:	Work zone Noise
Group:	Atmospheric Pollution

TEST REPORT

S. N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level		Location Details (core zone)			
1.	Equivalent Sound level dB(A) Leq	SUP/SO P/4033S D & IS:9989	Standard as per Noise Pollution Regulation Rule-2000		4 th Week			
			Category of area Zone	Limits in dB(A) Leq	N-1 Mines Quarry	N-2 Haul Road	N-3 D.G. Set	N-4 Crusher Plant
					27.03.2024	27.03.2024	27.03.2024	27.03.2024
					71.1	68.4	73.3	73.2
			1. Industrial	75				
			2. Commercial	65				
			3. Residential	55				
			4. Silent	50				

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

ULR-TC806624000000494F

REPORT NO. : N- 46

DATE: 12.04.2024

Name and Address of
Customer:

M/s. M.G. MOHANTY.

Patabeda Iron & Manganese Mines (19.425 Ha)

Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha

Ref. no. and Date:

MGM/WO/2023/24/11-164

Dated:28/11/2023

Sample receiving date:

21.03.2024 & 08.04.24

Sub:

Environmental monitoring

Material:

Ambient Noise

Group:

Atmospheric Pollution

TEST REPORT

S.N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level		Location Details (Buffer zone)	
1.	Equivalent Sound level dB(A) Leq	SUP/SOP/4 033SD & IS:9989	Standard as per Noise Pollution Regulation Rule- 2000		N- 5 <u>Ganua camp</u> 07.02.2024	N- 6 <u>Garuda camp</u> 21.03.2024
			Category of area Zone	Limits in dB(A) Leq	Quarterly Report	
			1. Industrial	75	37.2	39.4
			2. Commercial	65		
			3. Residential	55		
			4. Silent	50		

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

TEST REPORT

ULR-TC806624000000501F

Report No. N- 1494	Date: 12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work-order no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	22.03..2024
Sub:	Water monitoring
Material:	Drinking Water.
Group:	Water

CHEMICAL REPORT

Date of starting of Test 22.03..2024

Date of completion of Test: 10.04.2024

Sl. No.	Specific Test Performed	Test Method	Permissible limit IS:10500/2012 (max)	Test Result	
				GW1 Ganua camp Bore well	GW2 Ganua camp Dug Well
				Date of Collection 14.03.2024	Date of Collection 14.03.2024
1	pH	IS :3025,P-11, R.A 2009	6.5 – 8.5	8.5 at 17 °C	6.6 at 16 °C
2	Colour(Hazen unit)	APHA, 23rd Edn, 2120 B	15	5	8
3	Total Hardness as CaCO ₃ ,mg/l	IS 3025 (P-21), R.A. 2006	600	32	44
4	Alkalinity as CaCO ₃ ,mg/l	IS 3025 (P-23), R.A. 2014	600	24	56
5	Chlorides as Cl ⁻ , mg/l	IS 3025, P-32	1000	8	4
6	Calcium as Ca, mg/l	APHA 23rd EDN 3500 Ca B	200	8.0	12.8
7	Magnesium as Mg, mg/l	APHA 23rd EDN 3500 Mg B	100	2.9	2.9
8	Residual Free Chlorine, mg/l	IS 3025, P-34	1.0	<1.0	<1.0
9	Sulphate as SO ₄ ,mg/l	APHA, 23rd Edn, 4500 SO ₄ E	400	4.0	2.0
10	Nitrate as NO ₃ , mg/l	APHA, 23rd Edn, 4500 NO ₃ - B	45	2.5	3.9
11	Iron as Fe,mg/l	APHA, 23rd Edn, 3111 B	0.3	0.301	0.296
12	Copper as Cu,mg/l	APHA, 23rd Edn, 3111 B & C	1.5	<0.05	<0.05
13	Manganese as Mn,mg/l	APHA, 23rd Edn, 3111 B	0.3	<0.03	<0.03
14	Phenolic Compounds C ₆ H ₅ OH, mg/l	APHA, 23rd Edn, 5530 D	0.002	<0.002	<0.002
15	Zinc as Zn, mg/l	APHA, 23rd Edn, 3111 B & C	15.0	<0.01	<0.01
16	Cadmium as Cd, mg/l	APHA, 23rd Edn, 3111 B & C	0.003	<0.003	<0.003
17	Arsenic as As, mg/l	APHA, 23rd Edn, 3120 B	0.05	<0.05	<0.05
18	Cyanide as CN, mg/l	APHA, 23rd Edn, 4500 E	0.05	<0.05	<0.05
19	Lead as pb	--	-	<0.01	<0.01
20	Fluoride as F, mg/l	APHA, 23rd Edn, 4500 F – D	1.5	0.126	0.205
21	Total Dissolved solids (mg/l)	IS :3025, P-16, RA-2012	2000	42	56
22	Aluminium as Al mg/l	APHA 23rd Edn 3500 Al-B	0.2	<0.2	<0.2
23	Boron as B mg/l	APHA 23rd Edn 4500 B-B	1.0	<1.0	<1.0
24	Mercury as Hg, mg/l	IS 3025, P-48, Mercury Analyser	0.001	<0.001	<0.001
25	Turbidity (NTU)	IS 3025 (P-10), R.A. 2006	5	<1.0	1.3
26	Total Chromium as Cr ⁶⁺ , mg/l	APHA, 23rd Edn, 3500 B	0.05	<0.05	<0.05

Tested by

A. CHATTERJEE

Authorised Signatory

P. DUTTA (Technical Manager)

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GSTIN : 19AAECS3740C2ZJ



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TEST REPORT

Report No. N- 1494	Date: 12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work-order no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
- Sample receiving date:	22.03..2024
Sub:	Water monitoring
Material:	Drinking Water.
Group:	Water

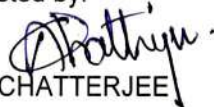
Date of starting of Test 22.03..2024

CHEMICAL REPORT

Date of completion of Test: 10.04.2024

Sl. No.	Specific Test Performed	Test Method	Permissible limit IS:10500/ 2012 (max))	Test Result	
				GW1 Ganua camp Bore well Date of Collection 14.03.2024	GW2 Ganua camp Dug Well Date of Collection 14.03.2024
27	Temperature °C	APHA, 23rd Edn, 2550 B	-	17 °C	16 °C
28	Mineral oil ,mg/l	IS :3025,P-39, R.A 2009	0.5	<0.5	<0.5
29	Odour	IS 3025 (P-06), R.A. 1983	Agreeable	Agreeable	Agreeable
30	Taste	IS 3025 (P-07), R.A. 1984	Agreeable	Agreeable	Agreeable

Tested by:


A. CHATTERJEE

Authorised Signatory


P. Dutta (Technical Manager)

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GSTIN : 19AAECS3740C2ZJ

TEST REPORT

Report No. N- 1494	Date: 12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work-order no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	22.03..2024
Sub:	Water monitoring
Material:	Drinking Water.

TEST RESULT OF BACTERIOLOGICAL

Date of starting of Test: 22.03..2024

Date of completion of Test: 03.04.2024

Sl. No.	Specific Test Performed	Test Method	Permissible Limits as per 10500:2012	Test Result	
				GW1 Ganua camp Bore well	GW2 Ganua camp Dug Well
				Date of Collection 14.03.2024	Date of Collection 14.03.2024
1	Coliform Organism / 100 ml.	As per IS: 1622-81	Shall not be detectable in 100 ml sample	Not found / 100ml	Not found / 100ml
2	E. Coli / 100ml.		Shall not be detectable in 100 ml sample	Not found / 100ml	Not found / 100ml

Tested by:

R Dasgupta
R Dasgupta

H. Ray
H. Ray

Antara Das
Antara Das

Authorised Signatory

P. Dutta
P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

Report No N- 1495	ULR-TC806624000000502F	DATE - 12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work-order no. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	22.03.2024	
Sub:	Water monitoring	
Material:	Surface Water	
Group:	Water	

CHEMICAL REPORT

Date of starting of Test 22.03.2024

Date of completion of Test 10.04.2024

Sl. No.	Specific Test Performed	Test Method	Test Result	
			SW1 Up-Stream (Kakarpani Nallaha)	SW2 Down-Stream (Kakarpani Nallaha)
			Date of Collection 14.03.2024	Date of Collection 14.03.2024
1	pH	IS :3025,P-11, R.A 2009	6.7	6.8
3	Turbidity(NTU)	IS 3025 (P-10), RA2006	3.1	2.4
3	Alkalinity as CaCo3 mg/l	IS 3025 (P-23), RA2014	36	32
4	Chloride as Cl mg/l	IS 3025 (P-32), RA2009	8	4
5	Total Hardness as CaCo3 mg/l	IS 3025 (P-21), RA2006	40	36
6	Calcium as Ca mg/l	APHA 23rd EDN 3500Ca B	8	9.6
7	Magnesium as Mg mg/l	APHA 23rd EDN 3500 Mg B	4.9	2.9
8	Sulphate as So4 mg/l	APHA 23rd EDN 4500 SO4 E	2.0	2.0
9	Nitrate as No3 mg/l	APHA 23rd EDN 4500 NO3 B	2.7	4.6
10	Fluoride as F mg/l	APHA 23rd EDN 4500 F D	<0.1	<0.1
11	Total dissolve Solids mg/l	IS 3025 (P-16), RA2012	34	35
12	Total Suspended Solids mg/l	APHA 23rd EDN 2540 D	12	22
13	D.O.	APHA 23rd EDN 4500 O-C	3.9	3.6
14	Iron as Fe mg/l	APHA 23rd EDN 3111 B	0.167	0.402
15	Copper as Cu mg/l	APHA 23rd EDN 3111 B &C	<0.05	<0.05
16	Zinc as Zn mg/l	APHA 23rd EDN 3111 B &C	0.09	0.10
17	Lead as Pb mg/l	APHA 23rd EDN 3120 B	<0.01	<0.01
18	Cadmium as Cd mg/l	APHA 23rd EDN 3111 B &C	<0.01	<0.01
19	Arsenic as As mg/l	APHA 23rd EDN 3120 B	<0.01	<0.01
20	Mercury as Hg mg/l	IS 3025 (P-48)MURCURY ANALYSER	<0.01	<0.01
21	Chromium as Cr +6mg/l	APHA 23rd EDN 3500 B	<0.2	<0.2
22	Phenolic compound mg/l	APHA 23rd EDN 5530 D	<0.01	<0.01

Tested by:

A. CHATTERJEE

Authorized Signatory

P. Dutta (Technical Manager)

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 - 3) Liability for return of samples ceases after 15 days from the date of test report.

TEST REPORT

Report No N- 1495		DATE - 12.04.2024	
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) <i>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha</i>		
Work-order no. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023	
Sample receiving date:	22.03.2024		
Sub:	Water monitoring		
Material:	Surface Water		
Group:	Water		

CHEMICAL REPORT

Date of starting of Test 22.03.2024

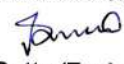
Date of completion of Test 10.04.2024

Sl. No.	Specific Test Performed	Test Method	Test Result	
			SW1 Up-Stream (Kakarpani Nallaha)	SW2 Down-Stream (Kakarpani Nallaha)
			Date of Collection 14.03.2024	Date of Collection 14.03.2024
23	Temperature	APHA 23 rd EDN 2550 B	17°C	18°C
24	Residual Free Chlorine mg/l	IS 3025 (P-26), RA2009	<1.0	<1.0
25	COD mg/l	APHA 23 rd EDN 5220 B	5	10
26	Oil and Grease mg/l	IS 3025 (P-39), RA2009	1.6	3.9
26	Aluminium as Al mg/l	APHA 23rd EDN 3500 Al-B	<0.2	<0.2
28	Boron as B mg/l	APHA 23rd EDN 4500 B-B	<1.0	<1.0
29	Manganese as Mn mg/l	APHA 23rd EDN 3111 B	0.162	0.089
30	Nickel as Ni mg/l	APHA 23rd EDN 3111 B & C	<0.02	<0.02
31	Cyanide as CN mg/l	APHA 23rd EDN 4500 E	<0.05	<0.05
32	Sulphide as S mg/l	APHA 23rd EDN 4500 S ² -F	N.T	N.T
33	Free Ammonia as N mg/l	IS 3025 (P-34)	N.T	N.T
34	Kjeldahl Nitrogen as N mg/l	IS 3025 (P-34)	9	16
35	Ammonia as N mg/l	IS 3025 (P-34)	<0.02	<0.02

Tested by:


A. CHATTERJEE

Authorized Signatory


P. Dutta (Technical Manager)

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SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

LABORATORY :

PLOT NO. Y-23, BLOCK-EP, SECTOR-V, SALT LAKE CITY, KOLKATA-700 091

☎ : (033) 2357-4671/ 4681 / 5039 / 5042 • Fax : (033) 2357- 4806

E-mail : supind2019@gmail.com / supind50@yahoo.co.in

Website : www.superintendencecoindia.com



(An ISO 9001 : 2015 Certified)

GSTIN : 19AAECS3740C2ZJ



TC-8066

TEST REPORT

ULR-TC806624000000503F	
Report No. N- 1496	Date:12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work-order no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	22.03.2024
Sub:	EFFLUENT WATER MONITORING REPORT (ETP,STP OUTLET)
Material:	Effluent Water Monitoring
Group:	Pollution and environment

CHEMICAL REPORT

Date of starting of Test 22.03.2024

Date of completion of Test: 10.04.2024

Sl. No.	Name of Parameter	Test Methods	CPCB Prescribed Limit for Inland Surface water (Max)		Results	
			ETP	STP	ETP – 19 Outlet Water	STP - 19 Outlet Water
					Date of Collection	Date of Collection
1	pH	IS 3025(P-11) R.A.2009	5.5-9.0	5.5-9.0	7.1 at 19°C	7.6 at 20°C
2	Total Dissolve Solids mg/l	IS 3025(P-16) R.A.2006	N/S	2100	283	283
3	Total suspended solids mg/l	IS 3025(P-17) 1984 R.A.2012	100	200	12	18
4	Chemical Oxygen Demand mg/l	APHA 23rd EDN 5220 B	250	N/S	7	10
5	Bio Chemical Oxygen Demand 3 days at 27°C mg/l	IS 3025(P-44), 1993 R.A. 1999	30	30	<3.0	<3.0
6	Oil and Grease mg/l	IS 3025(P-39), R.A.2009	10	N/S	2.9	N/R
7	Iron as Fe mg/l	APHA 23rd EDN 3111 B	3.0	3.0	0.996	0.562
8	Manganese as Mn mg/l	APHA 23rd EDN 3111 B	2.0	2.0	0.262	0.08
9	Chloride as cl mg/l	IS 3025, P-32	N/S	N/S	- N/R	40

Tested by:

A. CHATTERJEE

Authorized Signatory

P. Dutta (Technical Manager)

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Website : www.superintendencecoindia.com



(An ISO 9001 : 2015 Certified)

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

Report No. - 1496	Date: 12.04.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work-order no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	22.03.2024
Sub:	EFFLUENT WATER REPORT
Material:	Effluent Water Monitoring

TEST RESULT OF BACTERIOLOGICAL

Date of starting of Test 22.03.2024

Date of completion of Test 10.04.2024

Sl. No.	Specific Test Performed	Test Method	Permissible Limits as per OPCB (FOR OUT LET)	Test Result
				STP – 19 Out-let Water DATE- - 14.02.2024
1	Fecal Coliform (MPN/100)	As per IS: 1622-81	<1000	650cfu/100ml

Tested by:

R..Dasgupta H.Ray Antara Das

Authorised Signatory

P. Dutta (Technical Manager)

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SUPERINTENDENCE CO. OF INDIA (P) LTD.

**ENVIRONMENTAL BASELINE DATA GENERATION
AT**

M/S – M.G.MOHANTY

PROJECT: Patabeda Iron & Manganese Mines (19.425 Ha)

Work Order no.: MGM/WO/2023/24/11-164

Dated: 28/11/2023

**NAME OF WORK:
ENVIRONMENTAL MONITORING**

**REPORT
FOR THE MONTH OF FEBRUARY 2024**

REPORT SUBMITTED BY:

SUPERINTENDENCE CO. OF INDIA (P) LTD

Y-23, Block EP, Sector V, Salt Lake City-7000 91

Ph. No. : (033) - 2357-1492/4670/4671/4681

Fax: 033- 2357-4806

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Website: www.superintendence.co



SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

(An ISO 9001 : 2015 Certified)

Regional office : Plot No. Y-23, Block-EP, Sector-V, Salt Lake City, Kolkata-700 091, Phone : (033) 2357-4671/4681/4873/5039/5042
Fax : (033) 2357-4806, E-mail : supind2019@gmail.com, supind50@yahoo.co.in, Website : www.superintendencecoindia.com

Ref.: SUENV/ M.G. MOHANTY (19.425 Ha)/SP/KB /346

Date: 18.03.2024

To
The Mines Manager,
M/s. M.G. Mohanty.
Patabeda Iron Mines (19.425 Ha)
Patabeda, P.O. Malda, P.S. Koira,
Dist.: Sundergarh, Odisha

Sub: Submission of Test Report for the Month of **FEBRUARY 2024**

Work Order no.: MGM/WO/2023/24/11-164

Dated:28/11/2023

Dear Sir,

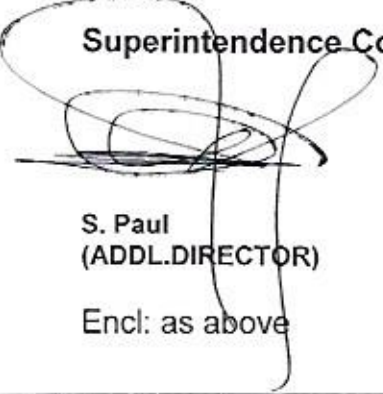
We are submitting herewith test reports for the month of **FEBRUARY 2024**
as follows:

- a. Ambient Air Monitoring (5 Parameters).
- b. Fugitive Dust
- c. Noise Monitoring
- d. Surface Water Quality
- e. ETP & STP out let Treated Water

Thanking you,

With Regards,

Superintendence Co. of India (P) Ltd.


S. Paul
(ADDL.DIRECTOR)

Encl: as above

Regd. office : 7G, EVEREST HOUSE, 46C, Chowringhee Road, Kolkata-700 071, Tele/Fax : (033) 2288-9015, E-mail : supind2019@gmail.com, supind50@yahoo.co.in
Website : www.superintendencecoindia.com

Mumbai : "LAXMI BHAWAN", 161, P. D. Mello Road, Mumbai-400 001, Phone : (022) 2261-1244, Fax : (022) 2261-5289, E-mail : supindbombay@gmail.com

Delhi : 203, "AGARWAL BHAWAN", 35-36, Nehru Place, New Delhi-110 019, Tele/Fax : (011) 2647-5066 E-mail : supind50@yahoo.co.in

Chennai : 138, Angappa Naicken Street, Chennai-600 001, Phone : (044) 2522-9885/6192, Fax : (044) 2522-1612, E-mail : supindchennai@rediffmail.com



TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1340	ULR-TC806624000000355F	DATE - 15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY, Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	21.02.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test 26.02.2024	CHEMICAL TEST RESULT	Date of completion of Test 01.03.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)
				01.02.24	02.02.24	03.02.24	04.02.24	05.01.24	06.02.24	07.02.24	08.02.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	48.61	40.52	45.36	39.45	46.75	42.01	41.29	47.12
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	82.93	70.43	76.19	68.91	77.34	72.83	71.36	81.25
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	16.89	14.27	15.68	11.80	13.52	15.98	14.47	16.71
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	24.08	20.15	21.82	19.27	20.43	22.67	23.94	25.38
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.06	1.08	1.14	0.99	1.10	1.02	1.21	1.19

Tested by:

A. Chatterjee
A. Chatterjee

Authorized Signatory

J.N. BERA
(Quality Manager)

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GSTIN : 19AAECS3740C2ZJ

TEST REPORT

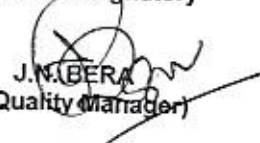
REPORT NO. : N- 1340	ULR-TC806624000000355F	DATE -15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY, Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	21.02.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 26.02.2024		
CHEMICAL TEST RESULT		
Date of completion of Test 01.03.2024		

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)
				09.02.24	10.02.24	11.02.24	12.02.24	13.02.24	14.02.24	15.02.24	16.02.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	43.57	46.22	42.56	45.23	40.23	41.73	39.50	40.51
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	75.43	79.51	74.18	77.35	70.59	72.48	69.64	73.47
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	13.29	18.03	14.92	15.14	13.80	14.37	12.73	14.39
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART- 6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	20.84	24.71	22.31	23.42	19.65	21.29	19.38	21.32
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.16	1.03	1.12	1.06	0.97	1.20	1.13	1.02

Tested by:


A. Chatterjee

Authorized Signatory


J.N. BERA
(Quality Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1407	ULR-TC806624000000360F	DATE - 15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) <i>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha</i>	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	06.03.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 09.03.2024	CHEMICAL TEST RESULT	Date of completion of Test 15.03.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)
				17.02.24	18.02.24	19.02.24	20.02.24	21.02.24	22.02.24	23.02.24	24.02.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	45.85	39.71	42.36	46.61	41.35	43.57	45.23	44.75
02	Particulate Matter (PM ₁₀) (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	78.49	69.30	75.19	80.29	72.84	74.98	79.49	76.31
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	15.23	13.59	14.82	16.36	12.73	13.69	14.58	13.15
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	22.68	19.48	22.53	24.54	19.20	20.72	21.64	20.86
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.91	0.89	0.94	1.05	0.93	1.01	0.92	0.96

Tested by:

A. Chatterjee

Authorized Signatory

J.N. BERA
(Quality Manager)

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TC-8066

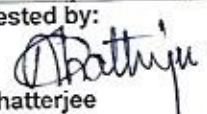
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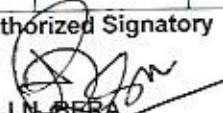
TEST REPORT

REPORT NO. : N- 1407	ULR-TC806624000000360F	DATE - 15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	06.03.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: 09.03.2024 **CHEMICAL TEST RESULT** Date of completion of Test 15.03.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result						
				NAME OF STATIONS						
				AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	-	-
				Sampling Collection Date						
				25.02.24	26.02.24	27.02.24	28.02.24	29.02.24	-	-
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	43.51	38.17	40.62	41.27	42.91	-	-
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	75.18	69.38	70.85	72.83	74.68	-	-
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	14.02	12.95	13.78	14.59	13.76	-	-
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	21.73	19.27	20.39	22.42	20.57	-	-
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.03	0.97	0.92	0.98	1.01	-	-

Tested by:

 A. Chatterjee

Authorized Signatory

 J.N. BERA
 (Quality Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1340	ULR-TC806624000000355F	DATE - -15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) <i>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha</i>	
Work order No. and Date:	MGM/VO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	21.02.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test 26.02.2024		
CHEMICAL TEST RESULT		
Date of completion of Test 01.03.2024		

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)
				01.02.24	02.02.24	03.02.24	04.02.24	05.02.24	06.02.24	07.02.24	08.02.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART-24	60 (µg/m ³) 24 Hrs.	43.21	40.25	38.17	41.57	45.23	39.01	40.36	36.51
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	75.87	70.90	69.23	72.09	78.54	70.38	73.47	64.38
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	14.32	13.84	13.52	15.29	16.42	12.47	14.23	11.19
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	21.51	20.32	19.46	22.38	24.17	20.75	23.82	18.42
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.96	1.03	0.94	1.15	1.08	0.96	1.07	0.03

Tested by:

A. Chatterjee

Authorized Signatory

J.N. BERA
(Quality Manager)

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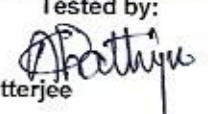
TC-8066

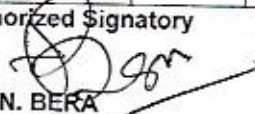
GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1340	ULR-TC806624000000355F	DATE - 15.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	21.02.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 26.02.2024	CHEMICAL TEST RESULT	Date of completion of Test 01.03.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)
				Sampling Collection Date							
				09.02.24	10.02.24	11.02.24	12.02.24	13.02.24	14.02.24	15.02.24	16.02.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	44.66	43.13	40.61	37.56	42.52	39.61	41.53	43.17
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	76.89	75.18	71.28	68.47	76.78	64.28	73.97	74.01
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	15.52	15.42	16.37	14.34	15.89	13.37	14.32	16.53
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6, 2006, RA-2017	80 (µg/m ³) 24 Hrs.	23.97	23.50	25.23	22.82	24.91	20.83	21.05	24.34
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.11	1.08	1.04	1.13	1.02	0.98	1.04	1.08

Tested by:

 A. Chatterjee

Authorized Signatory

 J.N. BERA
 (Quality Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1407	ULR-TC806624000000360F	DATE -15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) <i>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha</i>	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	06.03.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test 09.03.2024 **CHEMICAL TEST RESULT** Date of completion of Test 15.03.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)
				Sampling Collection Date							
				17.02.24	18.02.24	19.02.24	20.02.24	21.02.24	22.02.24	23.02.24	24.02.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	40.85	39.63	41.56	44.31	37.52	45.16	42.35	46.53
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	71.20	70.75	72.09	76.13	68.43	76.89	73.24	78.47
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	14.58	12.59	14.58	13.84	13.28	15.37	14.82	16.23
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	22.41	19.46	21.46	20.75	19.31	23.53	21.48	25.35
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.10	0.98	1.06	1.04	0.92	0.89	0.93	1.02

Tested by:

A. Chatterjee

Authorized Signatory

J.N. BERA

(Quality Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1407	ULR-TC806624000000360F	DATE - 15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/VO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	06.03.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: 09.03.2024 CHEMICAL TEST RESULT Date of completion of Test 15.03.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result						
				NAME OF STATIONS						
				AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	-	-
				Sampling Collection Date						
				25.02.24	26.02.24	27.02.24	28.02.24	29.02.24	-	-
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	43.61	40.61	52.16	44.64	41.06	-	-
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	75.13	70.58	73.89	78.63	72.54	-	-
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	14.06	13.45	13.78	15.49	12.42	-	-
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	22.57	21.34	20.51	24.51	20.27	-	-
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.03	0.96	1.01	0.92	0.96	-	-

Tested by:

A. Chatterjee

Authorized Signatory

J.N. BERA
(Quality Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1340	ULR-TC806624000000355F	DATE - 15.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	21.02.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 26.02.2024	CHEMICAL TEST RESULT	Date of completion of Test 01.0132024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)
				Sampling Collection Date							
				01.02.24	02.02.24	03.02.24	04.02.24	05.02.24	06.02.24	07.02.24	08.02.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	40.26	38.10	43.21	41.26	42.73	40.72	44.73	41.61
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	71.09	69.72	76.53	73.47	74.31	70.25	76.31	72.58
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	14.84	12.94	15.64	13.94	14.58	16.58	15.85	13.49
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	22.31	20.45	24.85	21.65	23.47	26.47	25.96	24.37
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.92	0.88	1.01	0.94	1.03	0.79	0.93	0.89

Tested by:

A. Chatterjee

Authorized Signatory

J.N. BERA
(Quality Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1340	ULR-TC806624000000355F	DATE - 15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY, Patabeda Iron & Manganese Mines (19.425 Ha) <i>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha</i>	
Work order No. and Date:	MGM/VO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	21.02.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: 26.02.2024 CHEMICAL TEST RESULT Date of completion of Test 01.03.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)
				Sampling Collection Date							
				09.02.24	10.02.24	11.02.24	12.02.24	13.02.24	14.02.24	15.02.24	16.02.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	41.61	46.45	40.58	42.13	37.47	43.57	45.16	42.17
02	Particulate Matter (PM ₁₀) (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	72.58	80.16	71.29	73.65	68.38	74.91	78.64	74.51
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	13.49	14.02	13.82	16.74	12.89	15.63	17.35	14.03
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	24.37	21.37	20.37	23.58	19.10	24.79	26.42	22.49
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.89	0.03	0.92	0.89	1.04	0.96	1.02	0.96

Tested by:

A. Chatterjee

Authorized Signatory

J.N. BERA
(Quality Manager)

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GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1407	ULR-TC806624000000360F	DATE - 15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	06.03.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test 09.03.2024	CHEMICAL TEST RESULT	Date of completion of Test 15.03.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)
				Sampling Collection Date							
				17.02.24	18.02.24	19.02.24	20.02.24	21.02.24	22.02.24	23.02.24	24.02.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	41.35	36.78	40.96	44.21	37.16	42.66	43.16	45.10
02	Particulate Matter (PM ₁₀) (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	73.20	68.56	70.81	78.54	69.27	72.72	74.37	76.85
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	13.84	12.47	13.63	15.42	12.35	72.75	15.21	16.24
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	19.69	20.35	18.79	23.56	20.44	14.07	23.69	25.42
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.89	1.01	0.92	0.94	0.88	0.91	0.87	0.93

Tested by:

A. Chatterjee

Authorized Signatory

J.N. BERA
(Quality Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1407	ULR-TC806624000000360F	DATE - 15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	06.03.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: 09.03.2024 CHEMICAL TEST RESULT Date of completion of Test 15.03.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result						
				NAME OF STATIONS						
				AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	-	-
				Sampling Collection Date						
				25.02.24	26.02.24	27.02.24	28.02.24	29.02.24	-	-
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	40.61	43.86	39.72	42.51	41.59	-	-
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	70.42	73.08	69.85	74.18	73.68	-	-
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	14.25	15.17	12.54	13.87	14.76	-	-
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	21.30	22.64	18.03	19.42	20.57	-	-
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.92	0.86	0.94	0.91	0.86	-	-

Tested by:

A. Chatterjee

Authorized Signatory

J.N. BERA
(Quality Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1340	ULR-TC806624000000355F	DATE - 15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY, Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	21.02.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 26.02.2024	CHEMICAL TEST RESULT	Date of completion of Test 01.03.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)
				Sampling Collection Date							
				01.02.24	02.02.24	03.02.24	04.02.24	05.02.24	06.02.24	07.02.24	08.02.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	49.21	52.42	46.57	50.57	48.25	53.78	47.25	50.81
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	80.36	86.39	74.23	84.61	79.80	88.41	80.74	85.69
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	18.57	19.61	15.84	19.73	14.95	17.52	15.43	18.73
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6, 2006, RA-2017	80 (µg/m ³) 24 Hrs.	27.05	28.78	25.39	29.37	19.39	24.67	23.78	27.36
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.38	1.42	1.25	1.39	1.52	1.47	1.20	1.08

Tested by:

A. Chatterjee

Authorized Signatory

J.N. BERA
(Quality Manager)

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GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1340	ULR-TC806624000000355F	DATE - 15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) <i>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha</i>	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	21.02.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test 26.02.2024 CHEMICAL TEST RESULT Date of completion of Test 01.03.2024		

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)
				Sampling Collection Date							
				09.02.24	10.02.24	11.02.24	12.02.24	13.02.24	14.02.24	15.02.24	16.02.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	52.17	47.51	53.80	48.62	51.24	52.47	49.26	48.41
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	87.42	78.45	89.75	80.49	85.46	87.43	79.42	77.60
03	Sulphur Di oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	14.24	15.23	19.36	16.27	18.67	17.69	16.37	18.05
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART- 6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	20.58	23.42	28.57	24.53	27.08	26.54	25.43	26.59
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.60	1.44	1.58	1.29	1.42	1.61	1.53	1.26

Tested by:

A. Chatterjee

Authorized Signatory

J.N. BERA
(Quality Manager)

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GSTIN : 19AAECS3740C2ZJ



TEST REPORT

REPORT NO. : N- 1407	ULR-TC806624000000360F	DATE - 15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) <i>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha</i>	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	06.03.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 09.03.2024 <u>CHEMICAL TEST RESULT</u> Date of completion of Test 15.03.2024		

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)
				Sampling Collection Date							
				17.02.24	18.02.24	19.02.24	20.02.24	21.02.24	22.02.24	23.02.24	24.02.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	52.41	46.85	50.45	49.08	45.26	51.69	49.32	47.52
02	Particulate Matter (PM ₁₀) (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	86.23	78.52	84.39	79.51	76.30	83.76	80.45	76.29
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	19.38	16.41	18.24	17.45	16.12	19.27	17.64	16.72
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	27.17	25.67	27.13	24.64	23.95	29.51	25.83	24.37
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.28	1.37	1.40	1.29	1.34	1.40	1.36	1.38

Tested by:

A. Chatterjee

Authorized Signatory

J.N. BERA
(Quality Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1407	ULR-TC806624000000360F	DATE -15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	06.03.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test 09.03.2024 CHEMICAL TEST RESULT

Date of completion of Test 15.03.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result						
				NAME OF STATIONS						
				AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	-	-
				Sampling Collection Date						
				25.02.24	26.02.24	27.02.24	28.02.24	29.02.24	-	-
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	48.71	52.09	46.71	49.52	50.46	-	-
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	78.50	84.17	76.43	79.15	82.57	-	-
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	16.08	19.74	15.28	16.34	18.02	-	-
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	24.62	27.95	23.07	25.68	26.28	-	-
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.33	1.29	1.40	1.38	1.36	-	-

Tested by:

A. Chatterjee

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TEST REPORT

REPORT NO. : N- 1340	ULR-TC806624000000355F	DATE - 15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/VO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	21.02.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: 26.02.2024 CHEMICAL TEST RESULT

Date of completion of Test 01.03.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result	
				NAME OF STATIONS	
				AAQ-5 Ganua Camp (BZ)	AAQ-6 Guruda camp (BZ)
				Sampling Collection Date	
				05.02.2024	12.02.2024
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	43.21	40.48
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	74.62	72.93
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	14.07	15.68
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	22.83	23.45
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.05	0.91

Tested by:

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SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

Report No.: N- 1408	ULR-TC806624000000360F	Date - 15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work Order No. and Date	MGM/WO/2023/24/11-164	Dated:28/11/2023
Date of Sample Received:	21.02.2024	
Sub:	Environment Monitoring	
Material:	Fugitive Dust Emission	
Group:	Atmospheric Pollution	

FUGITIVE DUST EMISSION MONITORING CHEMICAL TEST

Date of starting of test 26.02.2024				Date of completion of 01.03.2024	
Sl. No.	Name of Tests	Test Method	Permissible Limit as per OPCB	Test Result	
				NAME OF STATIONS	
				FD-1 Crusher Plant	
				Sampling Collection Date	
				19.02.2024	
01	Particulate Matter ($\mu\text{g}/\text{m}^3$)	IS:5182, PART-4, 2006, RA-2012	1200 ($\mu\text{g}/\text{m}^3$)	867.1	

Tested by:

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TC-8066

GSTIN : 19AAECS3740C2ZJ

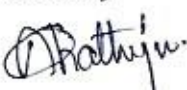
TEST REPORT

ULR-TC806624000000355F	
REPORT NO. : N - 1341	DATE - 15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY, Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Ref. no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	21.02.2024
Sub:	Environmental monitoring
Material:	Work zone Noise
Group:	Atmospheric Pollution

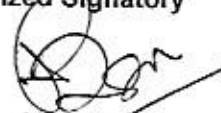
TEST REPORT

S. N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level		Location Details (core zone)			
1.	Equivalent Sound level dB(A) Leq	SUP/SO P/4033S D & IS:9989	Standard as per Noise Pollution Regulation Rule-2000		1 st Week			
					N-1 Mines Quarry	N-2 Haul Road	N-3 D.G. Set	N-4 Crusher Plant
			Category of area Zone	Limits in dB(A) Leq	07.02.2024	07.02.2024	07.02.2024	07.02.2024
			1. Industrial	75	70.7	67.4	68.3	72.2
			2. Commercial	65				
			3. Residential	55				
			4. Silent	50				

Tested by:


A. Chatterjee

Authorized Signatory


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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

ULR-TC806624000000358F	
REPORT NO. : N - 1341	DATE -15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Ref. no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	21.02.2024
Sub:	Environmental monitoring
Material:	Work zone Noise
Group:	Atmospheric Pollution

TEST REPORT

S. N.	Name of tests	Reference	Permissible limit as per Ambient Noise Level		Location Details (core zone)			
1.	Equivalent Sound level dB(A) Leq	SUP/SO P/4033S D & IS:9989	Standard as per Noise Pollution Regulation Rule-2000		2 nd Week			
			Category of area Zone	Limits in dB(A) Leq	N-1 Mines Quarry	N-2 Haul Road	N-3 D.G. Set	N-4 Crusher Plant
					14.02.2024	14.02.2024	14.02.2024	14.02.2024
					69.5	69.2	70.2	71.6
			1. Industrial	75				
			2. Commercial	65				
			3. Residential	55				
			4. Silent	50				

Tested by:

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GSTIN : 19AAECS3740C2ZJ

TEST REPORT

ULR-TC806624000000359F

REPORT NO. : N - 1409	DATE - 15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Ref. no. and Date:	MGM/VO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	06.03.2024
Sub:	Environmental monitoring
Material:	Work zone Noise
Group:	Atmospheric Pollution

TEST REPORT

S. N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level	Location Details (core zone)			
1.	Equivalent Sound level dB(A) Leq	SUP/SO P/4033S D & IS:9989	Standard as per Noise Pollution Regulation Rule-2000		3rd Week		
			Category of area Zone	Limits in dB(A) Leq	N-1 Mines Quarry	N-2 Haul Road	N-3 D.G. Set
							N-4 Crusher Plant
					21.02.2024	21.02.2024	21.02.2024
					71.0	68.3	70.1
			1. Industrial	75	71.0	68.3	70.1
			2. Commercial	65			
			3. Residential	55			
			4. Silent	50			
					71.0	68.3	70.1
							72.3

Tested by:

A. Chatterjee

Authorized Signatory

J.N. BERA
(Quality Manager)

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GSTIN : 19AAECS3740C2ZJ

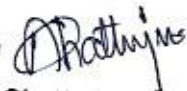
TEST REPORT

REPORT NO. : N - 1409		ULR-TC806624000000359F	
Name and Address of Customer:		DATE - 15.02.2024	
		M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Ref. no. and Date:	MGM/VO/2023/24/11-164	Dated:28/11/2023	
Sample receiving date:	06.02.2024		
Sub:	Environmental monitoring		
Material:	Work zone Noise		
Group:	Atmospheric Pollution		

TEST REPORT

S. N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level		Location Details (core zone)			
1.	Equivalent Sound level dB(A) Leq	SUP/SO P/4033S D & IS:9989	Standard as per Noise Pollution Regulation Rule-2000		4 th Week			
					N-1 Mines Quarry	N-2 Haul Road	N-3 D.G. Set	N-4 Crusher Plant
			Category of area Zone	Limits in dB(A) Leq	28.02.2024	28.02.2024	28.02.2024	28.02.2024
			1. Industrial	75	68.7	66.2	71.1	72.5
			2. Commercial	65				
			3. Residential	55				
			4. Silent	50				

Tested by:


A. Chatterjee

Authorized Signatory


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(Quality Manager)

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GSTIN : 19AAECS3740C2ZJ

TEST REPORT

ULR-TC806624000000358F

REPORT NO. : N- 1341

DATE: 05.03.2024

Name and Address of Customer:

M/s. M.G. MOHANTY.
Patabeda Iron & Manganese Mines (19.425 Ha)
Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha

Ref. no. and Date:

MGM/WO/2023/24/11-164 Dated:28/11/2023

Sample receiving date:

06.03.2024

Sub:

Environmental monitoring

Material:

Ambient Noise

Group:

Atmospheric Pollution

TEST REPORT

S.N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level		Location Details (Buffer zone)	
1.	Equivalent Sound level dB(A) Leq	SUP/SOP/4 033SD & IS:9989	Standard as per Noise Pollution Regulation Rule- 2000		N- 5 <u>Ganua camp</u> 08.02.2024	N- 6 <u>Garuda camp</u> 22.02.2024
			Category of area Zone	Limits in dB(A) Leq	Quarterly Report	
			1. Industrial	75	39.6	41.7
			2. Commercial	65		
			3. Residential	55		
			4. Silent	50		

Tested by:

A. Chatterjee

Authorized Signatory

J.N. BERA
(Quality Manager)

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GSTIN : 19AAECS3740C2ZJ

TEST REPORT

Report No N- 1342	ULR-TC806623000000356F	DATE - 15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work-order no. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	21.02.2024	
Sub:	Water monitoring	
Material:	Surface Water	
Group:	Water	

CHEMICAL REPORT

Date of starting of Test 21.02.2024

Date of completion of Test 11.03.2024

Sl. No.	Specific Test Performed	Test Method	Test Result	
			SW1 Up-Stream (Kakarpani Nallaha)	SW2 Down-Stream (Kakarpani Nallaha)
			Date of Collection 14.02.2024	Date of Collection 14.02.2024
1	pH	IS :3025,P-11, R.A 2009	7.37	7.40
3	Turbidity(NTU)	IS 3025 (P-10), RA2006	1.6	2.4
3	Alkalinity as CaCo ₃ mg/l	IS 3025 (P-23), RA2014	32	28
4	Chloride as Cl mg/l	IS 3025 (P-32), RA2009	4	4
5	Total Hardness as CaCo ₃ mg/l	IS 3025 (P-21), RA2006	32	32
6	Calcium as Ca mg/l	APHA 23rd EDN 3500Ca B	28	28
7	Magnesium as Mg mg/l	APHA 23rd EDN 3500 Mg B	5.05	5.05
8	Sulphate as So ₄ mg/l	APHA 23rd EDN 4500 SO ₄ E	<1.0	<1.0
9	Nitrate as No ₃ mg/l	APHA 23rd EDN 4500 NO ₃ B	2.8	3.0
10	Fluoride as F mg/l	APHA 23rd EDN 4500 F D	<0.1	<0.1
11	Total dissolve Solids mg/l	IS 3025 (P-16), RA2012	35	39
12	Total Suspended Solids mg/l	APHA 23rd EDN 2540 D	8	10
13	D.O.	APHA 23rd EDN 4500 O-C	3.9	3.8
14	Iron as Fe mg/l	APHA 23rd EDN 3111 B	0.262	0.305
15	Copper as Cu mg/l	APHA 23rd EDN 3111 B & C	<0.05	<0.05
16	Zinc as Zn mg/l	APHA 23rd EDN 3111 B & C	<0.01	<0.01
17	Lead as Pb mg/l	APHA 23rd EDN 3120 B	<0.01	<0.01
18	Cadmium as Cd mg/l	APHA 23rd EDN 3111 B & C	<0.01	<0.01
19	Arsenic as As mg/l	APHA 23rd EDN 3120 B	<0.01	<0.01
20	Mercury as Hg mg/l	IS 3025 (P-48)MURCURY ANALYSER	<0.01	<0.01
21	Chromium as Cr +6mg/l	APHA 23rd EDN 3500 B	<0.05	<0.05
22	Phenolic compound mg/l	APHA 23rd EDN 5530 D	<0.002	<0.002

Tested by:

A. CHATTERJEE

Authorized Signatory

J.N. BERA
(Quality Manager)

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TEST REPORT

Report No N- 1342		DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work-order no. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	21.02.2024	
Sub:	Water monitoring	
Material:	Surface Water	
Group:	Water	

CHEMICAL REPORT

Date of starting of Test 21.02.2024

Date of completion of Test 03.01.2024

Sl. No.	Specific Test Performed	Test Method	Test Result	
			SW1 Up-Stream (Kakarpani Nallaha)	SW2 Down-Stream (Kakarpani Nallaha)
			Date of Collection 14.02.2024	Date of Collection 14.02.2024
23	Temperature	APHA 23 rd EDN 2550 B	20°C	21°C
24	Residual Free Chlorine mg/l	IS 3025 (P-26), RA2009	<1.0	<1.0
25	COD mg/l	APHA 23 rd EDN 5220 B	12.0	15.0
26	Oil and Grease mg/l	IS 3025 (P-39), RA2009	1.2	1.4
26	Aluminium as Al mg/l	APHA 23 rd EDN 3500 Al-B	<0.2	<0.2
28	Boron as B mg/l	APHA 23 rd EDN 4500 B-B	<1.0	<1.0
29	Manganese as Mn mg/l	APHA 23 rd EDN 3111 B	<0.03	<0.03
30	Nickel as Ni mg/l	APHA 23 rd EDN 3111 B & C	<0.02	<0.02
31	Cyanide as CN mg/l	APHA 23 rd EDN 4500 E	<0.05	<0.05
32	Sulphide as S mg/l	APHA 23 rd EDN 4500 S ² -F	N.T	N.T
33	Free Ammonia as N mg/l	IS 3025 (P-34)	N.T	N.T
34	Kjeldahl Nitrogen as N mg/l	IS 3025 (P-34)	6	10
35	Ammonia as N mg/l	IS 3025 (P-34)	<0.02	<0.02

Tested by:

A. CHATTERJEE

Authorized Signatory

J.N. BERA
(Quality Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

ULR-TC806623000000357F	
Report No. N- 1343	Date: 15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work-order no. and Date:	MGM/WO/2023/24/11-164 Dated: 28/11/2023
Sample receiving date:	21.02.2024
Sub:	EFFLUENT WATER MONITORING REPORT (ETP, STP OUTLET)
Material:	Effluent Water Monitoring
Group:	Pollution and environment

CHEMICAL REPORT

Date of starting of Test 21.02.2024

Date of completion of Test: 11.03.2024

Sl. No.	Name of Parameter	Test Methods	CPCB Prescribed Limit for Inland Surface water (Max)		Results	
			ETP	STP	ETP - 19 Outlet Water	STP - 19 Outlet Water
					Date of Collection	Date of Collection
1	pH	IS 3025(P-11) R.A.2009	5.5-9.0	5.5-9.0	6.77 at 25°C	7.38 at 25°C
2	Total Dissolve Solids mg/l	IS 3025(P-16) R.A.2006	N/S	2100	32	185
3	Total suspended solids mg/l	IS 3025(P-17) 1984 R.A.2012	100	200	2	10
4	Chemical Oxygen Demand mg/l	APHA 23rd EDN 5220 B	250	N/S	10	9.0
5	Bio Chemical Oxygen Demand 3 days at 27°C mg/l	IS 3025(P-44), 1993 R.A. 1999	30	30	<3.0	8.8
6	Oil and Grease mg/l	IS 3025(P-39), R.A.2009	10	N/S	2.4	N/R
7	Iron as Fe mg/l	APHA 23rd EDN 3111 B	3.0	3.0	1.8	0.625
8	Manganese as Mn mg/l	APHA 23rd EDN 3111 B	2.0	2.0	<0.03	<0.03
9	Chloride as Cl mg/l	IS 3025, P-32	N/S	N/S	N/R	22

Tested by:

A. CHATTERJEE

Authorized Signatory

J.N. BERA
(Quality Manager)

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GSTIN : 19AAECS3740C2ZJ

TEST REPORT

Report No. - 1343	Date: 15.03.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work-order no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	21.02.2024
Sub:	EFFLUENT WATER REPORT
Material:	Effluent Water Monitoring

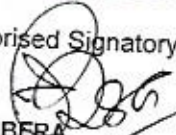
TEST RESULT OF BACTERIOLOGICAL

Date of starting of Test 21.02.2024		Date of completion of Test 06.03.2024		
Sl. No.	Specific Test Performed	Test Method	Permissible Limits as per OPCB (FOR OUT LET)	Test Result STP - 19 Out-let Water DATE - 14.02.2024
1	Fecal Coliform (MPN/100)	As per IS: 1622-81	<1000	900cfu/100ml

Tested by:

 R..Dasgupta

 H.Ray

Authorised Signatory

 J.N. BERA
 (Quality Manager)

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SUPERINTENDENCE CO. OF INDIA (P) LTD.

**ENVIRONMENTAL BASELINE DATA GENERATION
AT**

M/S – M.G.MOHANTY

PROJECT: Patabeda Iron & Manganese Mines (19.425 Ha)

Work Order no.: MGM/WO/2023/24/11-164

Dated: 28/11/2023

**REPORT
FOR THE MONTH OF JANUARY 2024**

Branch Office : AT/P.O : NALDA , DIST : KEONJHAR, ODISHA – 758 042
TEL #: 06767 – 212562, 211456,
CABLE – IMPARTIAL
E-mail: supindnalda@rediffmail.com

Regional Office: Plot No.: Y23, Block EP, Sector V, Salt Lake City-7000 91
Kolkata – 700 091
Ph. No. : (033) - 2357-1492/4670/4671/4681
Fax: 033- 2357-4806
E-mail: supindkolkata@vsnl.net / supind50yahoo.co.in
Website: www.superintendence.co

Regd. Office: “Everest House”, 7th floor, 46C, Chowringhee Road,
Kolkata – 700 071
Ph: _ (033) 2288-7572, 73/8960/6430/ 1487/1167
Fax No : (033) 2288- 9015 / 5894
E-mail: supindkolkata@vsnl.net / supind50@yahoo.co.in
Website: www.superintendence.co



SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

(An ISO 9001 : 2015 Certified)

Regional office : Plot No. Y-23, Block-EP, Sector-V, Salt Lake City, Kolkata-700 091, Phone : (033) 2357-4671/4681/4873/5039/5042
Fax : (033) 2357-4806, E-mail : supind2019@gmail.com, supind50@yahoo.co.in, Website : www.superintendencecoindia.com

Ref.: SUENV/ M.G. MOHANTY (19.425 Ha)/SP/KB /331

Date: 08.02.2024

To
The Mines Manager,
M/s. M.G. Mohanty.
Patabeda Iron Mines (19.425 Ha)
Patabeda, P.O. Malda, P.S. Koira,
Dist.: Sundergarh, Odisha

Sub: Submission of Test Report for the Month of **JANUARY 2024**

Work Order no.: MGM/VO/2023/24/11-164

Dated:28/11/2023

Dear Sir,

We are submitting herewith test reports for the month of **JANUARY 2024**

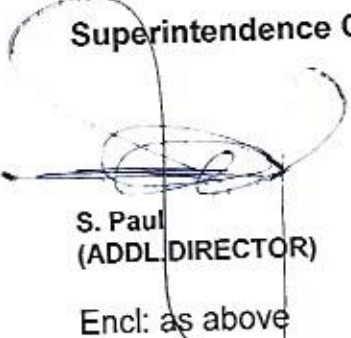
as follows:

- Ambient Air Monitoring (5 Parameters).
- Fugitive Dust
- Noise Monitoring
- Surface Water Quality
- ETP & STP out let Treated Water

Thanking you,

With Regards,

Superintendence Co. of India (P) Ltd.


S. Paul
(ADDL DIRECTOR)

Encl: as above

Regd. office : 7G, EVEREST HOUSE, 46C, Chowringhee Road, Kolkata-700 071, Tele/Fax : (033) 2288-9015, E-mail : supind2019@gmail.com, supind50@yahoo.co.in

Website : www.superintendencecoindia.com

Mumbai: "LAXMI BHAWAN", 161, P. D. Mello Road, Mumbai-400 001, Phone : (022) 2261-1244, Fax : (022) 2261-5289, E-mail : supindbombay@gmail.com

Delhi : 203, "AGARWAL BHAWAN", 35-36, Nehru Place, New Delhi-110 019, Tele/Fax : (011) 2647-5066 E-mail : supind50@yahoo.co.in

Chennai : 138, Angappa Naicken Street, Chennai-600 001, Phone : (044) 2522-9885/6192, Fax : (044) 2522-1612, E-mail : supindchennai@rediffmail.com



SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

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Website : www.superintendencecoindia.com



TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1181	ULR-TC806624000000157F	DATE - 07.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/VO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	16.01.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test	16.01.2024	DATE OF COMPLETION OF TEST 20.01.2024

CHEMICAL TEST RESULT

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)
				Sampling Collection Date							
				01.01.24	02.01.24	03.01.24	04.01.24	05.01.24	06.01.24	07.01.24	08.01.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	46.21	42.39	48.52	40.25	43.57	39.42	45.65	42.35
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	72.53	74.85	78.64	68.71	75.62	65.43	73.45	71.62
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	13.47	12.43	14.73	11.62	12.74	10.84	13.27	12.46
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6, 2006, RA-2017	80 (µg/m ³) 24 Hrs.	19.34	18.34	20.48	18.96	17.39	14.36	16.51	18.37
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.97	0.89	1.02	0.94	0.87	0.90	0.84	0.93

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1181	ULR-TC806624000000157F	DATE -07.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	16.01.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: **16.01.2024** CHEMICAL TEST RESULT Date of completion of Test **20.01.2024**

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)
				Sampling Collection Date							
				09.01.24	10.01.24	11.01.24	12.01.24	13.01.24	14.01.24	15.01.24	16.01.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	41.24	43.18	40.82	44.25	39.43	41.75	40.61	46.29
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	70.52	74.21	70.67	73.19	67.21	69.26	71.83	81.78
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	11.85	11.43	10.56	13.58	10.87	12.58	13.52	12.36
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	16.26	17.35	16.48	20.79	15.64	18.42	19.45	16.57
05	Carbon Mono Oxide (CO) (mg/m ³)	IS.5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.87	0.84	0.79	0.90	0.87	0.86	1.08	0.97

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1264	ULR-TC806624000000182F	DATE - 08.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/VO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	02.02.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 02.02.2024		
CHEMICAL TEST RESULT		
Date of completion of Test 08.02.2024		

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)
				17.01.24	18.01.24	19.01.24	20.01.24	21.01.24	22.01.24	23.01.24	24.01.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	39.42	42.83	45.34	43.15	41.27	34.75	26.48	10.62
02	Particulate Matter (PM ₁₀) (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	69.25	74.52	79.23	75.84	72.53	62.34	58.89	21.48
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	11.54	13.21	14.87	12.52	11.85	10.27	8.64	4.27
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	15.61	17.59	19.76	16.48	17.96	14.53	13.76	8.43
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.93	1.14	1.05	0.92	1.10	0.87	0.52	0.23

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1264	ULR-TC806624000000182F	DATE - 08.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	02.02.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: 02.02.2024 CHEMICAL TEST RESULT

Date of completion of Test 08.02.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result						
				NAME OF STATIONS						
				AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)
				Sampling Collection Date						
				25.01.24	26. 01.24	27. 01.24	28. 01.24	29. 01.24	30. 01.24	31. 01.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	26.31	42.31	40.16	45.71	41.35	38.15	43.25
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	56.49	77.28	71.37	79.83	70.56	68.34	74.51
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	10.58	12.52	11.23	14.28	12.47	10.73	13.46
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	16.17	17.45	15.62	20.42	18.22	15.28	19.38
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.84	0.97	0.87	0.96	1.03	0.92	0.94

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

TEST REPORT

REPORT NO. : N- 1181	ULR-TC806624000000157F	DATE - -07.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY, Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	16.01.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test	16.01.2024	CHEMICAL TEST RESULT
		Date of completion of Test 20.01.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)
				01.01.24	02.01.24	03.01.24	04.01.24	05.01.24	06.01.24	07.01.24	08.01.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	49.51	45.36	50.27	42.86	46.35	48.35	51.16	47.51
02	Particulate Matter (PM ₁₀) (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	81.27	77.94	80.52	70.24	74.56	78.94	79.89	76.48
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	13.15	14.83	15.45	11.52	13.82	14.23	14.56	12.63
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART- 6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	20.72	21.84	19.68	16.78	18.67	19.78	18.27	17.24
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.04	0.92	1.10	1.08	1.04	0.96	1.02	1.08

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1264	ULR-TC806624000000182F	DATE - 08.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	02.02.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test 02.02.2024

CHEMICAL TEST RESULT

Date of completion of Test 08.02.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)
				17.01.24	18.01.24	19.01.24	20.01.24	21.01.24	22.01.24	23.01.24	24.01.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART-24	60 (µg/m ³) 24 Hrs.	42.35	41.54	43.58	40.62	45.77	37.54	26.51	9.41
02	Particulate Matter (PM ₁₀) (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	73.42	72.43	75.41	69.85	78.28	64.62	58.46	18.27
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	12.36	12.37	13.29	11.54	14.39	10.85	9.57	4.39
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	16.28	17.62	18.56	15.92	18.73	14.73	13.52	7.83
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.01	0.82	0.79	0.90	0.93	0.86	0.54	0.16

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

TEST REPORT

REPORT NO. : N- 1264	ULR-TC806624000000182F	DATE - 08.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	02.02.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: 02.02.2024

CHEMICAL TEST RESULT

Date of completion of Test 08.02.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result						
				NAME OF STATIONS						
				AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)
				25.01.24	26.01.24	27.01.24	28.01.24	29.01.24	30.01.24	31.01.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	24.52	40.95	43.12	41.37	39.28	35.81	42.46
02	Particulate Matter (PM ₁₀) (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	50.48	70.78	77.24	73.63	68.52	64.75	76.37
03	Sulphur Dioxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	9.27	12.56	13.56	12.74	11.47	12.32	14.88
04	Nitrogen Dioxide (NO ₂) (µg/m ³)	IS:5182 PART-6, 2006, RA-2017	80 (µg/m ³) 24 Hrs.	13.84	16.47	17.45	17.25	15.63	17.55	19.59
05	Carbon Monoxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.64	0.84	0.90	0.88	0.76	0.79	0.92

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1181	ULR-TC806624000000157F	DATE - 07.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	16.01.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 16.01.2024		
CHEMICAL TEST RESULT		
Date of completion of Test 20.01.2024		

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)
				Sampling Collection Date							
				01.01.24	02.01.24	03.01.24	04.01.24	05.01.24	06.01.24	07.01.24	08.01.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	42.17	40.22	38.17	46.52	39.65	45.27	43.51	49.58
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	75.46	68.49	66.89	71.43	69.74	73.15	74.93	78.14
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	12.38	11.54	11.78	14.28	11.82	14.79	12.64	14.82
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART- 6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	18.75	16.36	15.27	19.31	16.43	20.36	18.79	19.26
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.84	0.76	0.90	0.79	0.88	0.89	0.90	0.92

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

TEST REPORT

REPORT NO. : N- 1181	ULR-TC806624000000157F	DATE - 07.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY, Patabeda Iron & Manganese Mines (19.425 Ha) <i>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha</i>	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	16.01.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: **16.01.2024**

CHEMICAL TEST RESULT

Date of completion of Test **20.01.2024**

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)
				Sampling Collection Date							
				09.01.24	10.01.24	11.01.24	12.01.24	13.01.24	14.01.24	15.01.24	16.01.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	41.67	42.61	45.26	40.26	46.61	43.26	42.61	40.25
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	71.73	72.46	74.37	69.18	79.53	76.34	74.86	71.54
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	11.48	12.39	13.82	11.34	14.95	13.72	13.47	11.76
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART- 6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	18.56	19.28	19.53	17.82	20.49	18.56	19.54	15.38
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.86	0.76	0.84	0.89	0.90	0.86	0.82	0.74

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

TEST REPORT

REPORT NO. : N- 1264	ULR-TC806624000000182F	DATE - 08.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY, Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	02.02.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: 02.02.2024

CHEMICAL TEST RESULT

Date of completion of Test 08.02.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)
				Sampling Collection Date							
				17.01.24	18.01.24	19.01.24	20.01.24	21.01.24	22.01.24	23.01.24	24.01.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	43.17	39.19	38.51	44.38	41.28	35.24	29.15	12.46
02	Particulate Matter (PM ₁₀) (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	76.24	70.38	68.45	78.25	71.65	67.37	54.34	23.67
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	14.35	10.74	10.67	14.54	11.79	9.53	8.91	5.23
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	21.33	16.22	15.73	20.86	16.42	13.48	12.49	9.22
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.80	0.76	0.65	0.80	0.91	0.70	0.52	0.27

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

TEST REPORT

REPORT NO. : N- 1264	ULR-TC806624000000182F	DATE - 08.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	02.02.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 02.02.2024		
CHEMICAL TEST RESULT		
Date of completion of Test 08.02.2024		

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result						
				NAME OF STATIONS						
				AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)
				25.01.24	26.01.24	27.01.24	28.01.24	29.01.24	30.01.24	31.01.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	29.19	41.25	46.17	42.35	40.17	38.56	43.13
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	64.78	70.64	76.43	72.64	72.48	64.67	75.21
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	9.34	12.76	14.52	13.73	11.34	10.89	13.36
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	14.32	18.38	19.41	17.36	15.23	14.92	19.47
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.56	0.88	0.92	0.83	0.95	0.74	0.91

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

TEST REPORT

REPORT NO. : N- 1181	ULR-TC806624000000157F	DATE - 07.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	16.01.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: **16.01.2024** CHEMICAL TEST RESULT Date of completion of Test **20.01.2024**

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)
				Sampling Collection Date							
				01.01.24	02.01.24	03.01.24	04.01.24	05.01.24	06.01.24	07.01.24	08.01.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	49.71	53.46	46.52	50.45	48.26	49.21	51.27	52.13
02	Particulate Matter (PM ₁₀) (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	78.32	86.62	76.24	83.14	79.57	80.57	82.69	85.46
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	14.25	16.87	15.31	16.72	13.43	14.39	16.74	15.69
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART- 6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	20.59	22.43	20.86	21.43	18.68	20.81	21.32	22.42
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.12	1.08	1.20	1.14	1.23	1.09	1.21	1.04

Tested by:

A. Chatterjee
A. Chatterjee

Authorized Signatory

P. Dutta
P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1181	ULR-TC806624000000157F	DATE - 07.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	16.01.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 16.01.2024	CHEMICAL TEST RESULT	Date of completion of Test 20.01.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)
				Sampling Collection Date							
				09.01.24	10.01.24	11.01.24	12.01.24	13.01.24	14.01.24	15.01.24	16.01.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	50.21	52.64	48.71	53.26	49.38	50.24	48.41	45.17
02	Particulate Matter (PM ₁₀) (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	83.56	85.43	78.52	84.13	79.57	82.32	80.62	79.82
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	14.37	16.25	14.28	17.65	14.89	15.13	14.83	15.45
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	19.84	21.39	19.47	22.78	18.45	20.66	21.26	23.24
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.06	1.08	1.13	1.06	1.14	1.08	1.05	1.21

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1264	ULR-TC806624000000182F	DATE - 08.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	02.02.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 02.02.2024		
CHEMICAL TEST RESULT		
Date of completion of Test 08.02.2024		

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)
				Sampling Collection Date							
				17.01.24	18.01.24	19.01.24	20.01.24	21.01.24	22.01.24	23.01.24	24.01.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	42.38	47.21	39.52	42.18	49.52	45.67	29.46	14.56
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	76.93	81.52	69.45	75.55	86.45	82.78	58.31	26.47
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	13.19	16.46	12.64	14.79	17.24	15.22	9.87	6.62
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	20.77	19.37	20.73	21.38	23.86	22.59	15.43	10.85
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.96	0.89	1.03	1.14	1.22	1.08	0.69	0.34

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

TEST REPORT

REPORT NO. : N- 1264	ULR-TC806624000000182F	DATE - 08.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	02.02.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test 02.02.2024 **CHEMICAL TEST RESULT**

Date of completion of Test 08.02.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result						
				NAME OF STATIONS						
				AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)
				25.01.24	26.01.24	27.01.24	28.01.24	29.01.24	30.01.24	31.01.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART-24	60 (µg/m ³) 24 Hrs.	36.24	48.59	44.68	50.84	49.75	52.83	46.38
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	71.66	79.46	76.72	86.56	80.34	85.19	75.46
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	12.78	14.27	16.94	18.48	15.42	19.37	16.54
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6, 2006, RA-2017	80 (µg/m ³) 24 Hrs.	19.32	20.89	22.95	23.27	20.58	24.95	21.72
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.09	1.24	1.26	1.18	1.30	1.22	1.16

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1264	ULR-TC806624000000182F	DATE - 08.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY, Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	02.02.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 02.02.2024	CHEMICAL TEST RESULT	Date of completion of Test 08.02.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result	
				NAME OF STATIONS	
				AAQ-5 Ganua Camp (BZ)	AAQ-6 Guruda camp (BZ)
				Sampling Collection Date	
				08.01.24	22.01.24
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	43.52	36.42
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	74.68	59.68
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	12.89	13.72
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	17.34	19.59
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.78	0.82

Tested by:

A. Chatterjee

Authorized Signatory

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

ULR-TC806624000000158F

Report No.: N- 1182	Date – 07.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work Order No. and Date	MGM/WO/2023/24/11-164 Dated:28/11/2023
Date of Sample Received:	16.01.2024
Sub:	Environment Monitoring
Material:	Fugitive Dust Emission
Group:	Atmospheric Pollution

FUGITIVE DUST EMISSION MONITORING CHEMICAL TEST

Date of starting of test 16.01.2024

Date of completion of 18.01.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per OPCB	Test Result
				NAME OF STATIONS
				FD-1 Crusher Plant
				Sampling Collection Date
				13.01.2024
01	Particulate Matter ($\mu\text{g}/\text{m}^3$)	IS:5182, PART-4, 2006, RA-2012	1200 ($\mu\text{g}/\text{m}^3$)	842.3

Tested by:

A. Chatterjee

Authorized Signatory

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TC-8066

TEST REPORT

ULR-TC806624000000159F

REPORT NO. : N - 1183	DATE - 07.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Ref. no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	16.01.2024
Sub:	Environmental monitoring
Material:	Work zone Noise
Group:	Atmospheric Pollution

TEST REPORT

S. N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level		Location Details (core zone)			
1.	Equivalence Sound level dB(A) Leq	SUP/SO P/4033S D & IS:9989	Standard as per Noise Pollution Regulation Rule- 2000		1 st Week			
			Category of area Zone	Limits in dB(A) Leq	N-1 Mines Quarry	N-2 Haul Road	N-3 D.G. Set	N-4 Crusher Plant
					03.01.2024	03.01.2024	03.01.2024	03.01.2024
					69.3	68.2	70.6	73.0
			1. Industrial	75				
			2. Commercial	65				
			3. Residential	55				
			4. Silent	50				

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta

(Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

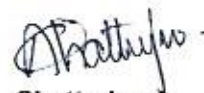
TEST REPORT

ULR-TC806624000000159F	
REPORT NO. : N - 1183	DATE -07.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY, Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Ref. no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	16.01..2024
Sub:	Environmental monitoring
Material:	Work zone Noise
Group:	Atmospheric Pollution

TEST REPORT

S. N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level		Location Details (core zone)			
1.	Equivalent Sound level dB(A) Leq	SUP/SO P/4033S D & IS:9989	Standard as per Noise Pollution Regulation Rule-2000		2 nd Week			
			Category of area Zone	Limits in dB(A) Leq	N-1 Mines Quarry	N-2 Haul Road	N-3 D.G. Set	N-4 Crusher Plant
					10.01.2024	10.01.2024	10.01.2024	10.01.2024
					70.1	67.5	71.3	73.3
				1. Industrial				
				2. Commercial				
				3. Residential				
				4. Silent				

Tested by:


A. Chatterjee

Authorized Signatory


P. Dutta

(Technical Manager)

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GSTIN : 19AAECS3740C2ZJ



TC-8066

TEST REPORT

ULR-TC806624000000183F

REPORT NO. : N - 1265

DATE - 08.02.2024

Name and Address of Customer:

M/s. M.G. MOHANTY.

Patabeda Iron & Manganese Mines (19.425 Ha)

Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha

Ref. no. and Date:

MGM/WO/2023/24/11-164

Dated:28/11/2023

Sample receiving date:

02.02.2024

Sub:

Environmental monitoring

Material:

Work zone Noise

Group:

Atmospheric Pollution

TEST REPORT

S. N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level		Location Details (core zone)			
1.	Equivalence Sound level dB(A) Leq	SUP/SO P/4033S D & IS:9989	Standard as per Noise Pollution Regulation Rule- 2000		3rd Week			
			Category of area Zone	Limits in dB(A) Leq	N-1 Mines Quarry	N-2 Haul Road	N-3 D.G. Set	N-4 Crusher Plant
					17.01.2024	17.01.2024	17.01.2024	17.01.2024
					68.1	65.0	71.4	73.2
			1. Industrial	75				
			2. Commercial	65				
			3. Residential	55				
			4. Silent	50				

Tested by:

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(Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

ULR-TC806624000000183F	
REPORT NO. : N - 1265	DATE - 08.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY, Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Ref. no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	02.02.2024
Sub:	Environmental monitoring
Material:	Work zone Noise
Group:	Atmospheric Pollution

TEST REPORT

S. N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level		Location Details (core zone)			
1.	Equivalence Sound level dB(A) Leq	SUP/SO P/4033S D & IS:9989	Standard as per Noise Pollution Regulation Rule- 2000		4 th Week			
			Category of area Zone	Limits in dB(A) Leq	N-1 Mines Quarry	N-2 Haul Road	N-3 D.G. Set	N-4 Crusher Plant
					24.01.2024	24.01.2024	24.01.2024	24.01.2024
					66.3	67.4	70.2	72.2
			1. Industrial	75				
			2. Commercial	65				
			3. Residential	55				
			4. Silent	50				

Tested by:

A. Chatterjee

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P. Dutta

(Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

ULR-TC806624000000183F

REPORT NO. : N - 1265	DATE - 08.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY, Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Ref. no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	02.02.2024
Sub:	Environmental monitoring
Material:	Work zone Noise
Group:	Atmospheric Pollution

S. N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level		Location Details (core zone)			
1.	Equivalent Sound level dB(A) Leq	SUP/SO P/4033S D & IS:9989	Standard as per Noise Pollution Regulation Rule-2000		5 th Week			
			Category of area Zone	Limits in dB(A) Leq	N-1 Mines Quarry	N-2 Haul Road	N-3 D.G. Set	N-4 Crusher Plant
					31.01.2024	31.01.2024	31.01.2024	31.01.2024
					67.6	65.3	69.4	71.3
				1. Industrial				
				2. Commercial				
				3. Residential				
				4. Silent				

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta

(Technical Manager)

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GSTIN : 19AAECS3740C2ZJ

TEST REPORT

ULR-TC806624000000183F	
REPORT NO. : N- 1265	DATE: 08.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Ref. no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	02.02.2024
Sub:	Environmental monitoring
Material:	Ambient Noise
Group:	Atmospheric Pollution

TEST REPORT

S.N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level		Location Details (Buffer zone)	
1.	Equivalent Sound level dB(A) Leq	SUP/SOP/4 033SD & IS:9989	Standard as per Noise Pollution Regulation Rule- 2000		N- 5 <u>Ganua camp</u> 08.01.2024	N- 6 <u>Garuda camp</u> 22.01.2024
			Category of area Zone	Limits in dB(A) Leq	Quarterly Report	
			1. Industrial	75	42.3	43.6
			2. Commercial	65		
			3. Residential	55		
			4. Silent	50		

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta

(Technical Manager)

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TC-8066

TEST REPORT

Report No N- 1185		ULR-TC806624000000166F	DATE - 07.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY, Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha		
Work-order no. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023	
Sample receiving date:	16.01.2024		
Sub:	Water monitoring		
Material:	Surface Water		
Group:	Water		

CHEMICAL REPORT

Date of starting of Test 16.01.2024

Date of completion of Test 06.02.2024

Sl. No.	Specific Test Performed	Test Method	Test Result	
			SW1 Up-Stream (Kakarpani Nallaha) Date of Collection 13.01.2024	SW2 Down-Stream (Kakarpani Nallaha) Date of Collection 13.01.2024
1	pH	IS :3025,P-11, R.A 2009	7.09	7.22
3	Turbidity(NTU)	IS 3025 (P-10), RA2006	1.0	2.7
3	Alkalinity as CaCO ₃ mg/l	IS 3025 (P-23), RA2014	20	24
4	Chloride as Cl mg/l	IS 3025 (P-32), RA2009	4	4
5	Total Hardness as CaCO ₃ mg/l	IS 3025 (P-21), RA2006	20	24
6	Calcium as Ca mg/l	APHA 23rd EDN 3500Ca B	4.8	6.0
7	Magnesium as Mg mg/l	APHA 23rd EDN 3500 Mg B	1.9	1.9
8	Sulphate as SO ₄ mg/l	APHA 23rd EDN 4500 SO ₄ E	<1.0	10.0
9	Nitrate as NO ₃ mg/l	APHA 23rd EDN 4500 NO ₃ B	2.8	3.2
10	Fluoride as F mg/l	APHA 23rd EDN 4500 F D	<0.1	<0.1
11	Total dissolve Solids mg/l	IS 3025 (P-16), RA2012	28	53
12	Total Suspended Solids mg/l	APHA 23rd EDN 2540 D	<1.0	<1.0
13	D.O.	APHA 23rd EDN 4500 O-C	3.8	3.5
14	Iron as Fe mg/l	APHA 23rd EDN 3111 B	0.225	0.262
15	Copper as Cu mg/l	APHA 23rd EDN 3111 B & C	<0.04	<0.04
16	Zinc as Zn mg/l	APHA 23rd EDN 3111 B & C	<0.01	<0.01
17	Lead as Pb mg/l	APHA 23rd EDN 3120 B	<0.01	<0.01
18	Cadmium as Cd mg/l	APHA 23rd EDN 3111 B & C	<0.01	<0.01
19	Arsenic as As mg/l	APHA 23rd EDN 3120 B	<0.05	<0.05
20	Mercury as Hg mg/l	IS 3025 (P-48)MURCURY ANALYSER	<0.001	<0.001
21	Chromium as Cr +6mg/l	APHA 23rd EDN 3500 B	<0.05	<0.05
22	Phenolic compound mg/l	APHA 23rd EDN 5530 D	<0.002	<0.002

Tested by:

A. CHATTERJEE

Authorized Signatory

P. DUTTA
(Technical Manager)

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GSTIN : 19AAECS3740C2ZJ

TEST REPORT

Report No N- 1185		DATE - 07.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY, Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work-order no. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	16.01.2024	
Sub:	Water monitoring	
Material:	Surface Water	
Group:	Water	

CHEMICAL REPORT

Date of starting of Test 16.01.2024

Date of completion of Test 06.02.2024

Sl. No.	Specific Test Performed	Test Method	Test Result	
			SW1 Up-Stream (Kakarpani Nallaha) Date of Collection 13.01.2024	SW2 Down-Stream (Kakarpani Nallaha) Date of Collection 13.01.2024
23	Temperature	APHA 23 rd EDN 2550 B	27°C	27°C
24	Residual Free Chlorine mg/l	IS 3025 (P-26), RA2009	<1.0	<1.0
25	COD mg/l	APHA 23 rd EDN 5220 B	4.0	8.0
26	Oil and Grease mg/l	IS 3025 (P-39), RA2009	<0.1	<0.1
26	Aluminium as Al mg/l	APHA 23 rd EDN 3500 Al-B	<0.2	<0.2
28	Boron as B mg/l	APHA 23 rd EDN 4500 B-B	<1.0	<1.0
29	Manganese as Mn mg/l	APHA 23 rd EDN 3111 B	<0.03	<0.03
30	Nickel as Ni mg/l	APHA 23 rd EDN 3111 B & C	<0.02	<0.02
31	Cyanide as CN mg/l	APHA 23 rd EDN 4500 E	<0.05	<0.05
32	Sulphide as S mg/l	APHA 23 rd EDN 4500 S ² -F	N.T	N.T
33	Free Ammonia as N mg/l	IS 3025 (P-34)	N.T	N.T
34	Kjeldahl Nitrogen as N mg/l	IS 3025 (P-34)	3	5
35	Ammonia as N mg/l	IS 3025 (P-34)	<0.02	<0.02

Tested by:

A. CHATTERJEE

Authorized Signatory

P. DUTTA
(Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

Report No. N- 1184		ULR-TC806624000000165F	
Name and Address of Customer:		Date: 07.02.2024	
		M/s. M.G. MOHANTY, Patabeda Iron Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work-order no. and Date:	MGM/WO/2023/24/11-164	Dated: 28/11/2023	
Sample receiving date:	16.01.2024		
Sub:	EFFLUENT WATER MONITORING REPORT (ETP, STP OUTLET)		
Material:	Effluent Water Monitoring		
Group:	Pollution and environment		

CHEMICAL REPORT

Date of starting of Test 16.01.2024

Date of completion of Test: 06.02.2024

Sl. No.	Name of Parameter	Test Methods	CPCB Prescribed Limit for Inland Surface water (Max)		Results	
			ETP	STP	ETP - 19 Outlet Water Date of Collection	STP - 19 Outlet Water Date of Collection
1	pH	IS 3025(P-11) R.A.2009	5.5-9.0	5.5-9.0	7.5 at 27°C	7.86 at 27°C
2	Total Dissolve Solids mg/l	IS 3025(P-16) R.A.2006	N/S	2100	209	233
3	Total suspended solids mg/l	IS 3025(P-17) 1984 R.A.2012	100	200	<1.0	3.0
4	Chemical Oxygen Demand mg/l	APHA 23rd EDN 5220 B	250	N/S	28	44
5	Bio Chemical Oxygen Demand 3 days at 27°C mg/l	IS 3025(P-44), 1993 R.A. 1999	30	30	<3.0	<3.0
6	Oil and Grease mg/l	IS 3025(P-39), R.A.2009	10	N/S	1.8	N/R
7	Iron as Fe mg/l	APHA 23rd EDN 3111 B	3.0	3.0	0.462	0.397
8	Manganese as Mn mg/l	APHA 23rd EDN 3111 B	2.0	2.0	<0.03	0.266
9	Chloride as Cl mg/l	IS 3025, P-32	N/S	N/S	- N/R	20

Tested by:

A. CHATTERJEE

Authorized Signatory

P.DUTTA (Technical Manager)

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TEST REPORT

Report No. -1184	Date: 07.02.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work-order no. and Date:	MGM/VO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	16.01.2024
Sub:	EFFLUENT WATER REPORT
Material:	Effluent Water Monitoring

TEST RESULT OF BACTERIOLOGICAL

Date of starting of Test 16.01.2024		Date of completion of Test 06.02.2024		
Sl. No.	Specific Test Performed	Test Method	Permissible Limits as per OPCB (FOR OUT LET)	Test Result STP - 19 Out-let Water DATE- - 13.01.2024
1	Fecal Coliform (MPN/100)	As per IS: 1622-81	<1000	800cfu/100ml

for *H. Ray* Tested by:
R..Dasgupta H.Ray

Authorised Signatory

P. Dutta
P.DUTTA

(Technical Manager)

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SUPERINTENDENCE CO. OF INDIA (P) LTD.

**ENVIRONMENTAL BASELINE DATA GENERATION
AT**

M/S – M.G.MOHANTY

PROJECT: Patabeda Iron & Manganese Mines (19.425 Ha)

Work Order no.: MGM/WO/2023/24/11-164

Dated: 28/11/2023

**REPORT
FOR THE MONTH OF DECEMBER 2023**

Branch Office : AT/P.O : NALDA , DIST : KEONJHAR, ODISHA – 758 042
TEL #: 06767 – 212562, 211456,
CABLE – IMPARTIAL
E-mail: supindnalda@rediffmail.com

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Ph. No. : (033) - 2357-1492/4670/4671/4681
Fax: 033- 2357-4806
E-mail: supindkolkata@vsnl.net / supind50yahoo.co.in
Website: www.superintendence.co

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SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

(An ISO 9001 : 2015 Certified)

Regional office : Plot No. Y-23, Block-EP, Sector-V, Salt Lake City, Kolkata-700 091, Phone : (033) 2357-4671/4681/4873/5039/5042
Fax : (033) 2357-4806, E-mail : supind2019@gmail.com, supind50@yahoo.co.in, Website : www.superintendencecoindia.com

Ref.: SUENV/ M.G. MOHANTY (19.425 Ha)/KB /316

Date: 04.01.2024

To
The Mines Manager,
M/s. M.G. Mohanty.
Patabeda Iron Mines (19.425 Ha)
Patabeda, P.O. Malda, P.S. Koira,
Dist.: Sundergarh, Odisha

Sub: Submission of Test Report for the Month of **DECEMBER 2023**

Work Order no.: MGM/WO/2023/24/11-164

Dated:28/11/2023

Dear Sir,

We are submitting herewith test reports for the month of **DECEMBER 2023**

as follows:

- Ambient Air Monitoring (5 Parameters).
- Fugitive Dust
- Noise Monitoring
- Surface Water Quality
- Drinking Water Quality
- ETP & STP out let Treated Water

Thanking you,

With Regards,

Superintendence Co. of India (P) Ltd.

T.BHATTACHARJEE
(Dy. MANAGING DIRECTOR)
Encl: as above



TC-8066

TEST REPORT

REPORT NO. : N- 1049	ULR-TC806623000000011F	DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	26.12.2023	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: **26.12.2023** CHEMICAL TEST RESULT Date of completion of Test **29.12.2023**

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)
				Sampling Collection Date							
				01.12.23	02.12.23	03.12.23	04.12.23	05.12.23	06.12.23	07.12.23	08.12.23
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	46.25	47.12	42.53	40.27	45.79	39.58	45.25	42.12
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	78.51	80.65	72.88	68.14	76.46	69.81	74.68	73.89
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	10.47	11.76	10.39	10.36	9.37	12.63	11.67	12.38
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6, 2006, RA-2017	80 (µg/m ³) 24 Hrs.	18.34	19.27	17.42	16.98	14.23	19.74	17.23	18.46
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.86	0.92	0.79	0.87	0.94	0.82	0.95	0.88

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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GSTIN : 19AAECS3740C2ZJ



(An ISO 9001 : 2015 Certified)



TC-8066

TEST REPORT

REPORT NO. : N- 1049	ULR-TC806623000000011F	DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	26.12.2023	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: **26.12.2023** CHEMICAL TEST RESULT Date of completion of Test **29.12.2023**

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)
				Sampling Collection Date							
				09.12.23	10.12.23	11.12.23	12.12.23	13.12.23	14.12.23	15.12.23	16.12.23
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	43.57	46.42	42.93	48.21	47.51	45.61	41.86	48.51
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	76.35	77.18	73.81	80.56	79.18	76.47	70.15	78.42
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	12.84	12.36	10.64	11.47	13.43	12.39	10.34	13.25
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6, 2006, RA-2017	80 (µg/m ³) 24 Hrs.	20.98	19.57	16.45	17.62	19.62	18.48	15.42	10.36
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.96	0.93	0.90	0.95	0.87	0.92	0.89	0.89

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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Website : www.superintendencecoindia.com

GSTIN : 19AAECS3740C2ZJ



TC-8066

TEST REPORT

REPORT NO. : N- 1103	ULR-TC806623000000017F	DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	03.01.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: 03.01.2024 CHEMICAL TEST RESULT

Date of completion of Test 04.01.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)
				Sampling Collection Date							
				17.12.23	18.12.23	19.12.23	20.12.23	21.12.23	22.12.23	23.12.23	24.12.23
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	43.67	49.54	50.27	43.56	45.67	48.55	45.52	40.36
02	Particulate Matter (PM ₁₀) (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	75.43	80.69	82.34	74.37	78.43	79.49	78.26	70.48
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	12.57	14.52	15.85	11.72	13.28	14.58	12.67	10.25
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	17.48	20.46	22.78	16.34	19.72	20.64	16.73	14.82
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.01	0.94	0.88	0.92	0.96	0.95	0.84	0.95

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1103	ULR-TC806623000000017F	DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	03.01.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: 03.01.2024 CHEMICAL TEST RESULT

Date of completion of Test 04.01.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result						
				NAME OF STATIONS						
				AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)	AAQ-1 Mines Quarry (CZ)
				Sampling Collection Date						
				25.12.23	26.12.23	27.12.23	28.12.23	29.12.23	30.12.23	31.12.23
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	45.18	42.31	39.76	46.51	41.75	48.37	49.67
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	78.45	73.42	68.37	76.47	72.34	80.43	79.52
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	13.51	11.25	10.42	14.62	11.42	14.29	15.47
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART- 6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	19.36	16.34	14.26	20.78	17.66	21.38	20.38
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.95	1.06	0.92	0.79	0.89	0.92	0.96

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1049	ULR-TC806623000000011F	DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) <i>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha</i>	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	26.12.2023	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: **26.12.2023** CHEMICAL TEST RESULT

Date of completion of Test **29.12.2023**

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)
				Sampling Collection Date							
				01.12.23	02.12.23	03.12.23	04.12.23	05.12.23	06.12.23	07.12.23	08.12.23
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	40.61	43.87	41.52	38.75	42.15	45.26	43.72	42.58
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	72.48	74.13	71.48	68.34	70.86	80.48	75.31	73.16
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	12.39	13.94	10.61	10.23	13.97	12.57	11.45	12.87
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	16.56	19.23	14.87	16.52	18.72	17.83	16.84	18.63
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.86	0.88	0.78	0.89	0.82	0.79	0.87	0.89

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

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 Website : www.superintendencecoindia.com

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1049	ULR-TC806623000000011F	DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	26.12.2023	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 26.12.2023		

CHEMICAL TEST RESULT

Date of completion of Test 29.12.2023

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)
				09.12.23	10.12.23	11.12.23	12.12.23	13.12.23	14.12.23	15.12.23	16.12.23
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	46.71	46.12	42.58	40.56	43.65	45.48	43.61	40.67
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	78.25	80.24	72.16	70.69	75.46	76.23	73/72	71.65
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	12.34	12.63	11.37	10.78	13.72	12.37	12.37	11.64
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	17.43	16.81	15.41	14.26	17.63	16.82	17.52	16.43
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.92	0.88	0.94	0.92	0.89	0.93	0.96	0.96

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

TEST REPORT

REPORT NO. : N- 1103	ULR-TC806623000000017F	DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) <i>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha</i>	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	03.01.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test 03.01.2024	CHEMICAL TEST RESULT	Date of completion of Test 04.01.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)
				Sampling Collection Date							
				17.12.23	18.12.23	19.12.23	20.12.23	21.12.23	22.12.23	23.12.23	24.12.23
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	46.32	43.17	38.67	42.59	46.13	41.83	47.23	43.82
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	80.45	72.32	69.72	76.42	82.47	73.46	76.16	74.51
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	13.24	12.49	12.45	13.65	14.79	13.64	16.94	14.27
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	18.61	17.58	16.28	19.24	20.68	19.45	21.63	19.64
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.89	0.92	0.84	0.96	0.87	0.92	0.94	0.98

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1103	ULR-TC806623000000017F	DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/VO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	03.01.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: 03.01.2024

CHEMICAL TEST RESULT

Date of completion of Test 04.01.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result						
				NAME OF STATIONS						
				AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)	AAQ-2 Mines entry point (CZ)
				Sampling Collection Date						
				25.12.23	26.12.23	27.12.23	28.12.23	29.12.23	30.12.23	31.12.23
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	40.72	38.67	46.28	44.52	43.86	41.62	45.23
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	70.24	68.51	80.17	76.25	74.15	72.54	78.15
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	12.53	10.82	13.69	14.64	13.78	12.36	15.64
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	16.41	14.36	18.71	19.37	20.97	18.47	21.89
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.96	1.02	0.95	0.94	0.89	0.92	0.91

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

TEST REPORT

REPORT NO. : N- 1049	ULR-TC806623000000011F	DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) <i>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha</i>	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	26.12.2023	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: **26.12.2023** CHEMICAL TEST RESULT Date of completion of Test **29.12.2023**

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)
				Sampling Collection Date							
				01.12.23	02.12.23	03.12.23	04.12.23	05.12.23	06.12.23	07.12.23	08.12.23
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	48.61	47.58	50.84	46.23	43.52	45.61	48.52	50.69
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	80.27	79.46	84.51	75.69	74.34	74.49	78.46	88.78
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	11.35	12.37	10.45	12.76	13.15	12.37	10.38	11.29
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	16.82	18.23	16.34	17.87	19.86	16.24	14.79	16.43
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.92	0.90	0.86	0.92	0.89	0.96	0.93	0.87

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

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Website : www.superintendencecoindia.com

GSTIN : 19AAECS3740C2ZJ



(An ISO 9001 : 2015 Certified)



TC-8066

TEST REPORT

REPORT NO. : N- 1049	ULR-TC806623000000011F	DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	26.12.2023	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: 26.12.2023 CHEMICAL TEST RESULT

Date of completion of Test 29.12.2023

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)
				Sampling Collection Date							
				09.12.23	10.12.23	11.12.23	12.12.23	13.12.23	14.12.23	15.12.23	16.12.23
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	49.58	46.13	42.51	48.34	45.31	43.84	44.56	46.48
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	81.67	75.48	71.56	80.23	78.12	72.65	76.87	78.39
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	12.73	12.32	11.47	13.58	12.56	10.72	13.63	13.21
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6, 2006, RA-2017	80 (µg/m ³) 24 Hrs.	18.34	19.45	17.32	20.41	18.97	16.28	19.78	18.97
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.92	0.89	0.92	0.93	0.95	0.88	0.90	0.82

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1103	ULR-TC806623000000017F	DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	03.01.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 03.01.2024		
CHEMICAL TEST RESULT		
Date of completion of Test 04.01.2024		

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)
				Sampling Collection Date							
				17.12.23	18.12.23	19.12.23	20.12.23	21.12.23	22.12.23	23.12.23	24.12.23
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	40.82	39.25	42.81	47.26	43.67	48.23	40.25	46.21
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	72.51	69.54	72.65	80.37	79.81	76.57	68.48	72.57
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	10.46	10.33	12.46	14.52	13.78	14.62	11.39	12.42
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART- 6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	15.24	14.38	17.57	19.45	19.54	21.54	17.56	18.35
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.79	0.94	0.89	0.90	0.96	1.02	0.98	0.92

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

TEST REPORT

REPORT NO. : N- 1103	ULR-TC806623000000017F	DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/VO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	03.01.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 03.01.2024		
CHEMICAL TEST RESULT		
Date of completion of Test 04.01.2024		

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result						
				NAME OF STATIONS						
				AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)	AAQ-3 Dump (CZ)
				25.12.23	26.12.23	27.12.23	28.12.23	29.12.23	30.12.23	31.12.23
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	49.68	42.36	40.54	45.68	47.25	48.76	47.62
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	80.47	76.48	72.46	75.42	79.54	81.27	80.31
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	14.32	12.32	11.27	13.24	14.29	14.52	13.47
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	21.53	18.79	17.85	20.56	20.48	22.47	18.53
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.96	0.97	0.92	0.89	0.92	0.94	0.86

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

TEST REPORT

REPORT NO. : N- 1049	ULR-TC806623000000011F	DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) <i>Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha</i>	
Work order No. and Date:	MGM/VO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	26.12.2023	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: **26.12.2023** CHEMICAL TEST RESULT

Date of completion of Test **29.12.2023**

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)
				Sampling Collection Date							
				01.12.23	02.12.23	03.12.23	04.12.23	05.12.23	06.12.23	07.12.23	08.12.23
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	49.61	51.64	52.47	48.56	50.35	46.21	48.32	50.61
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	80.28	84.81	86.23	80.47	83.96	79.58	80.21	85.78
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	13.59	14.95	15.32	14.23	15.67	15.84	16.13	15.27
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6, 2006, RA-2017	80 (µg/m ³) 24 Hrs.	20.43	21.39	22.78	19.82	20.43	21.43	22.89	20.34
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.08	1.06	0.98	1.12	1.03	1.21	1.08	1.13

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1049	ULR-TC806623000000011F	DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	26.12.2023	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: 26.12.2023 CHEMICAL TEST RESULT

Date of completion of Test 29.12.2023

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)
				Sampling Collection Date							
				09.12.23	10.12.23	11.12.23	12.12.23	13.12.23	14.12.23	15.12.23	16.12.23
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	52.16	52.17	50.42	54.61	49.85	52.41	51.67	54.61
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	87.58	87.31	80.21	86.78	79.14	83.54	84.73	86.27
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	15.42	14.88	13.54	15.26	12.39	14.25	14.28	13.45
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	21.23	20.67	19.89	21.37	18.96	19.32	20.42	20.57
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.23	1.06	1.13	1.08	1.20	1.09	1.21	1.16

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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GSTIN : 19AAECS3740C2ZJ

TEST REPORT



TC-8066

REPORT NO. : N- 1103	ULR-TC806623000000017F	DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	03.01.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 03.01.2024		
CHEMICAL TEST RESULT		
Date of completion of Test 04.01.2024		

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result							
				NAME OF STATIONS							
				AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)
				17.12.23	18.12.23	19.12.23	20.12.23	21.12.23	22.12.23	23.12.23	24.12.23
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	50.32	48.27	53.68	52.38	55.21	51.64	55.46	49.26
02	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	82.15	80.53	85.94	91.45	89.16	87.45	90.27	86.57
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	12.61	11.45	14.63	15.64	13.45	14.26	15.62	16.42
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	18.76	16.21	20.41	19.42	20.57	19.38	21.75	22.45
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.08	1.20	1.12	1.04	1.15	1.26	1.18	1.26

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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GSTIN : 19AAECS3740C2ZJ



TC-8066

TEST REPORT

REPORT NO. : N- 1103	ULR-TC806623000000017F	DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	03.01.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	
Date of starting of Test: 03.01.2024		
CHEMICAL TEST RESULT		
Date of completion of Test 04.01.2024		

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result						
				NAME OF STATIONS						
				AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)	AAQ-4 Haul Road (CZ)
				Sampling Collection Date						
				25.12.23	26.12.23	27.12.23	28.12.23	29.12.23	30.12.23	31.12.23
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	50.21	46.25	54.32	56.79	52.14	53.18	55.46
02	Particulate Matter (PM ₁₀) (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	80.47	79.48	87.54	89.41	84.35	86.72	90.82
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	13.67	12.56	14.58	16.57	14.56	13.25	15.92
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	20.71	16.17	18.65	19.23	21.67	20.53	21.35
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	1.25	1.30	1.09	1.26	1.15	1.24	1.16

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 1103	ULR-TC806623000000017F	DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work order No. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	03.01.2024	
Sub:	Environmental monitoring	
Material:	Ambient Air	
Group:	Atmospheric Pollution	

Date of starting of Test: 03.01.2024 CHEMICAL TEST RESULT Date of completion of Test 03.01.2024

Sl. No.	Name of Tests	Test Method	Permissible Limit as per NAAQS-2009	Test Result	
				NAME OF STATIONS	
				AAQ-5 Ganua Camp (BZ)	AAQ-6 Guruda camp (BZ)
				Sampling Collection Date	
				04.12.23	18.12.23
01	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	39.71	43.49
02	Particulate Matter (PM ₁₀) (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	68.23	67.31
03	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	12.59	12.47
04	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	16.86	18.25
05	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.89	0.82

Tested by:

A. Chatterjee

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P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

ULR-TC806623000000012F	
Report No.: N- 1044	Date – 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY, Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work Order No. and Date	MGM/WO/2023/24/11-164 Dated:28/11/2023
Date of Sample Received:	26.12.2023
Sub:	Environment Monitoring
Material:	Fugitive Dust Emission
Group:	Atmospheric Pollution

FUGITIVE DUST EMISSION MONITORING CHEMICAL TEST

Date of starting of test 28.12.2023

Date of completion of 29.12.2023

Sl. No.	Name of Tests	Test Method	Permissible Limit as per OPCB	Test Result
				NAME OF STATIONS
				FD-1 Crusher Plant
				Sampling Collection Date
				12.11.2023
01	Particulate Matter ($\mu\text{g}/\text{m}^3$)	IS:5182, PART-4, 2006, RA-2012	1200 ($\mu\text{g}/\text{m}^3$)	867.2

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

ULR-TC806623000000013F

REPORT NO. : N - 1051

DATE - 04.01.2024

Name and Address of
Customer:

M/s. M.G. MOHANTY.
Patabeda Iron & Manganese Mines (19.425 Ha)
Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha

Ref. no. and Date:

MGM/WO/2023/24/11-164

Dated:28/11/2023

Sample receiving date:

26..12..2023

Sub:

Environmental monitoring

Material:

Work zone Noise

Group:

Atmospheric Pollution

TEST REPORT

S. N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level		Location Details (core zone)			
1.	Equivalence Sound level dB(A) Leq	SUP/SO P/4033S D & IS:9989	Standard as per Noise Pollution Regulation Rule- 2000		1 st Week			
			Category of area Zone	Limits in dB(A) Leq	N-1 Mines Quarry	N- 2 Haul Road	N- 3 D.G. Set	N- 4 Crusher Plant
					06.12.2023	06.12.2023	06.12.2023	06.12.2023
					67.1	69.0	71.3	72.2
			1. Industrial	75				
			2. Commercial	65				
			3. Residential	55				
			4. Silent	50				

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta

(Technical Manager)

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TC-8066

TEST REPORT

ULR-TC806623000001336F	
REPORT NO. : N - 1051	DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Ref. no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	26..12..2023
Sub:	Environmental monitoring
Material:	Work zone Noise
Group:	Atmospheric Pollution

TEST REPORT

S. N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level		Location Details (core zone)			
1.	Equivalent Sound level dB(A) Leq	SUP/SO P/4033S D & IS:9989	Standard as per Noise Pollution Regulation Rule-2000		2 nd Week			
			Category of area Zone	Limits in dB(A) Leq	N-1 Mines Quarry	N-2 Haul Road	N-3 D.G. Set	N-4 Crusher Plant
					13.12.2023	13.12.2023	13.12.2023	13.12.2023
				1. Industrial	68.3	69.2	72.1	73.4
				2. Commercial				
				3. Residential				
				4. Silent				

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta

(Technical Manager)

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TC-8066

TEST REPORT

ULR-TC806624000000018F	
REPORT NO. : N - 1104	DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Ref. no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	03.01.2024
Sub:	Environmental monitoring
Material:	Work zone Noise
Group:	Atmospheric Pollution

TEST REPORT

S. N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level		Location Details (core zone)			
1.	Equivalent Sound level dB(A) Leq	SUP/SO P/4033S D & IS:9989	Standard as per Noise Pollution Regulation Rule-2000		3rd Week			
			Category of area Zone	Limits in dB(A) Leq	N-1 Mines Quarry	N-2 Haul Road	N-3 D.G. Set	N-4 Crusher Plant
					20.12.2023	20.12.2023	20.12.2023	20.12.2023
					66.5	68.4	73.1	71.3
			1. Industrial	75				
			2. Commercial	65				
			3. Residential	55				
			4. Silent	50				

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta

(Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

ULR-TC806624000000018F	
REPORT NO. : N - 1104	DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Ref. no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	03.01.2024
Sub:	Environmental monitoring
Material:	Work zone Noise
Group:	Atmospheric Pollution

TEST REPORT

S. N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level		Location Details (core zone)			
1.	Equivalent Sound level dB(A) Leq	SUP/SO P/4033S D & IS:9989	Standard as per Noise Pollution Regulation Rule-2000		4 th Week			
			Category of area Zone	Limits in dB(A) Leq	N-1 Mines Quarry	N- 2 Haul Road	N- 3 D.G. Set	N- 4 Crusher Plant
					27.12.2023	27.12.2023	27.12.2023	27.12.2023
					69.0	67.2	72.0	73.4
			1. Industrial	75				
			2. Commercial	65				
			3. Residential	55				
			4. Silent	50				

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta

(Technical Manager)

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TC-8066

TEST REPORT

ULR-TC806624000000018F	
REPORT NO. : N- 1104	DATE: 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Ref. no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	03.01.2024
Sub:	Environmental monitoring
Material:	Ambient Noise
Group:	Atmospheric Pollution

TEST REPORT

S.N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level		Location Details (Buffer zone)	
1.	Equivalent Sound level dB(A) Leq	SUP/SOP/4 033SD & IS:9989	Standard as per Noise Pollution Regulation Rule- 2000		N- 5 <u>Ganua camp</u> 04.12.2023	N- 6 <u>Garuda camp</u> 18.12.2023
			Category of area Zone	Limits in dB(A) Leq	Quarterly Report	
			1. Industrial	75	45.4	44.2
			2. Commercial	65		
			3. Residential	55		
			4. Silent	50		

Tested by:

A. Chatterjee

A. Chatterjee

Authorized Signatory

P. Dutta

P. Dutta

(Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

Report No N- 1053	ULR-TC806623000000015F	DATE - 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work-order no. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023
Sample receiving date:	26.12.2023	
Sub:	Water monitoring	
Material:	Surface Water	
Group:	Water	

CHEMICAL REPORT

Date of starting of Test 27.12.2023

Date of completion of Test 03.01.2024

Sl. No.	Specific Test Performed	Test Method	Test Result	
			SW1 Up-Stream (Kakarpani Nallaha)	SW2 Down-Stream (Kakarpani Nallaha)
			Date of Collection 13.12.2023	Date of Collection 13.12.2023
1	pH	IS :3025,P-11, R.A 2009	6.9	6.8
3	Turbidity(NTU)	IS 3025 (P-10), RA2006	7.0	8.2
3	Alkalinity as CaCo3 mg/l	IS 3025 (P-23), RA2014	24	28
4	Chloride as Cl mg/l	IS 3025 (P-32), RA2009	4	4
5	Total Hardness as CaCo3 mg/l	IS 3025 (P-21), RA2006	40	36
6	Calcium as Ca mg/l	APHA 23rd EDN 3500Ca B	6	8
7	Magnesium as Mg mg/l	APHA 23rd EDN 3500 Mg B	6	4
8	Sulphate as So4 mg/l	APHA 23rd EDN 4500 SO4 E	<1.0	<1.0
9	Nitrate as No3 mg/l	APHA 23rd EDN 4500 NO3 B	4.2	4.4
10	Fluoride as F mg/l	APHA 23rd EDN 4500 F D	<0.1	<0.1
11	Total dissolve Solids mg/l	IS 3025 (P-16), RA2012	31	30
12	Total Suspended Solids mg/l	APHA 23rd EDN 2540 D	2.0	3.0
13	D.O.	APHA 23rd EDN 4500 O-C	3.8	3.5
14	Iron as Fe mg/l	APHA 23rd EDN 3111 B	0.246	0.216
15	Copper as Cu mg/l	APHA 23rd EDN 3111 B & C	<0.05	<0.05
16	Zinc as Zn mg/l	APHA 23rd EDN 3111 B & C	<0.01	<0.01
17	Lead as Pb mg/l	APHA 23rd EDN 3120 B	<0.01	<0.01
18	Cadmium as Cd mg/l	APHA 23rd EDN 3111 B & C	<0.01	<0.01
19	Arsenic as As mg/l	APHA 23rd EDN 3120 B	<0.05	<0.05
20	Mercury as Hg mg/l	IS 3025 (P-48)MURCURY ANALYSER	<0.001	<0.001
21	Chromium as Cr +6mg/l	APHA 23rd EDN 3500 B	<0.05	<0.05
22	Phenolic compound mg/l	APHA 23rd EDN 5530 D	<0.002	<0.002

Tested by:

A. CHATTERJEE

Authorized Signatory

P. DUTTA
(Technical Manager)

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GSTIN : 19AAECS3740C2ZJ

TEST REPORT

Report No N- 1053		DATE - 04.01.2024	
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha		
Work-order no. and Date:	MGM/WO/2023/24/11-164	Dated:28/11/2023	
Sample receiving date:	26.12.2023		
Sub:	Water monitoring		
Material:	Surface Water		
Group:	Water		

CHEMICAL REPORT

Date of starting of Test 26.12..2023

Date of completion of Test 03.01.2024

Sl. No.	Specific Test Performed	Test Method	Test Result	
			SW1 Up-Stream (Kakarpani Nallaha)	SW2 Down-Stream (Kakarpani Nallaha)
			Date of Collection 13.12.2023	Date of Collection 13.12.2023
23	Temperature	APHA 23 rd EDN 2550 B	17 ^o C	17 ^o C
24	Residual Free Chlorine mg/l	IS 3025 (P-26), RA2009	<1.0	<1.0
25	COD mg/l	APHA 23 rd EDN 5220 B	12.0	16.0
26	Oil and Grease mg/l	IS 3025 (P-39), RA2009	<0.1	<0.1
26	Aluminium as Al mg/l	APHA 23 rd EDN 3500 Al-B	0.162	0.113
28	Boron as B mg/l	APHA 23 rd EDN 4500 B-B	<1.0	<1.0
29	Manganese as Mn mg/l	APHA 23 rd EDN 3111 B	<0.03	<0.03
30	Nickel as Ni mg/l	APHA 23 rd EDN 3111 B & C	<0.02	<0.02
31	Cyanide as CN mg/l	APHA 23 rd EDN 4500 E	<0.05	<0.05
32	Sulphide as S mg/l	APHA 23 rd EDN 4500 S ² -F	N.T	N.T
33	Free Ammonia as N mg/l	IS 3025 (P-34)	N.T	N.T
34	Kjeldahl Nitrogen as N mg/l	IS 3025 (P-34)	3.0	5.0
35	Ammonia as N mg/l	IS 3025 (P-34)	<0.02	<0.02

Tested by:

A. CHATTERJEE

Authorized Signatory

P. DUTTA
(Technical Manager)

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LABORATORY :

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Website : www.superintendencecoindia.com

GSTIN : 19AAECS3740C2ZJ



(An ISO 9001 : 2015 Certified)



TEST REPORT

ULR-TC806623000000016F	
Report No. N- 1052	Date: 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work-order no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	26.12..2023
Sub:	Water monitoring
Material:	Drinking Water.
Group:	Water

CHEMICAL REPORT

Date of starting of Test 27.12..2023

Date of completion of Test: 03.01.2024

Sl. No.	Specific Test Performed	Test Method	Permissible limit IS:10500/2012 (max)	Test Result	
				GW1 Ganua camp Bore well Date of Collection 14.12.2023	GW2 Ganua camp Dug Well Date of Collection 14.12.2023
1	pH	IS :3025,P-11, R.A 2009	6.5 – 8.5	6.6 at 16 °C	6.7 at 16 °C
2	Colour(Hazen unit)	APHA, 23rd Edn, 2120 B	15	<1.0	<1.0
3	Total Hardness as CaCO ₃ ,mg/l	IS 3025 (P-21), R.A. 2006	600	44	56
4	Alkalinity as CaCO ₃ ,mg/l	IS 3025 (P-23), R.A. 2014	600	28	32
5	Chlorides as Cl , mg/l	IS 3025, P-32	1000	4	12
6	Calcium as Ca, mg/l	APHA 23rd EDN 3500 Ca B	200	13	13
7	Magnesium as Mg, mg/l	APHA 23rd EDN 3500 Mg B	100	3	6
8	Residual Free Chlorine, mg/l	IS 3025, P-34	1.0	<1.0	<1.0
9	Sulphate as SO ₄ ,mg/l	APHA, 23rd Edn, 4500 SO ₄ E	400	4	1.0
10	Nitrate as NO ₃ mg/l	APHA, 23rd Edn, 4500 NO ₃ - B	45	2.3	3.6
11	Iron as Fe,mg/l	APHA, 23rd Edn, 3111 B	0.3	<0.05	<0.05
12	Copper as Cu,mg/l	APHA, 23rd Edn, 3111 B & C	1.5	<0.05	<0.05
13	Manganese as Mn,mg/l	APHA, 23rd Edn, 3111 B	0.3	<0.03	<0.03
14	Phenolic Compounds C ₆ H ₅ OH, mg/l	APHA, 23rd Edn, 5530 D	0.002	<0.002	<0.002
15	Zinc as Zn, mg/l	APHA, 23rd Edn, 3111 B & C	15.0	<0.01	<0.01
16	Cadmium as Cd, mg/l	APHA, 23rd Edn, 3111 B & C	0.003	<0.003	<0.003
17	Arsenic as As, mg/l	APHA, 23rd Edn, 3120 B	0.05	<0.05	<0.05
18	Cyanide as CN, mg/l	APHA, 23rd Edn, 4500 E	0.05	<0.05	<0.05
19	Lead as pb	--	-	<0.01	<0.01
20	Fluoride as F, mg/l	APHA, 23rd Edn, 4500 F – D	1.5	0.242	0.210
21	Total Dissolved solids (mg/l)	IS :3025, P-16, RA-2012	2000	64	50
22	Aluminium as Al mg/l	APHA 23rd Edn 3500 Al-B	0.2	<0.2	<0.2
23	Boron as B mg/l	APHA 23rd Edn 4500 B-B	1.0	<1.0	<1.0
24	Mercury as Hg, mg/l	IS 3025, P-48, Mercury Analyser	0.001	<0.001	<0.001
25	Turbidity (NTU)	IS 3025 (P-10), R.A. 2006	5	<1.0	5.0
26	Total Chromium as Cr ⁺⁺ , mg/l	APHA, 23rd Edn, 3500 B	0.05	<0.05	<0.05

Tested by

Authorised Signatory

A. CHATTERJEE

P. DUTTA (Technical Manager)

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Website : www.superintendencecoindia.com

GSTIN : 19AAECS3740C2ZJ



(An ISO 9001 : 2015 Certified)

TEST REPORT

Report No. N- 1052	Date: 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work-order no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	26.12..2023
Sub:	Water monitoring
Material:	Drinking Water.
Group:	Water

Date of starting of Test 26.12..2023

CHEMICAL REPORT

Date of completion of Test: 03.01.2024

Sl. No.	Specific Test Performed	Test Method	Permissible limit IS:10500/ 2012 (max))	Test Result	
				GW1 Ganua camp Bore well Date of Collection 14.12.2023	GW2 Ganua camp Dug Well Date of Collection 14.12.2023
27	Temperature °C	APHA, 23rd Edn, 2550 B	-	16 °C	16 °C
28	Mineral oil ,mg/l	IS :3025,P-39, R.A 2009	0.5	<0.5	<0.5
29	Odour	IS 3025 (P-06), R.A. 1983	Agreeable	Agreeable	Agreeable
30	Taste	IS 3025 (P-07), R.A. 1984	Agreeable	Agreeable	Agreeable

Tested by:

A. CHATTERJEE

Authorised Signatory

P. Dutta (Technical Manager)

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GSTIN : 19AAECS3740C2ZJ

TEST REPORT

Report No. N- 1052	Date: 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work-order no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	26.12..2023
Sub:	Water monitoring
Material:	Drinking Water.

TEST RESULT OF BACTERIOLOGICAL

Date of starting of Test: 27.12..2023

Date of completion of Test: 03.01.2024

Sl. No.	Specific Test Performed	Test Method	Permissible Limits as per 10500:2012	Test Result	
				GW1 Gana camp Bore well	GW2 Gana camp Dug Well
				Date of Collection 14.12.2023	Date of Collection 14.12.2023
1	Coliform Organism / 100 ml.	As per IS: 1622-81	Shall not be detectable in 100 ml sample	Not found / 100ml	Not found / 100ml
2	E. Coli / 100ml.		Shall not be detectable in 100 ml sample	Not found / 100ml	Not found / 100ml

Tested by:

R Dasgupta H. Ray

Authorised Signatory

P. Dutta (Technical Manager)

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GSTIN : 19AAECS3740C2ZJ

TEST REPORT



TC-8066

ULR-TC806623000000014F	
Report No. N- 1054	Date:04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work-order no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	26.12..2023
Sub:	EFFLUENT WATER MONITORING REPORT (ETP,STP OUTLET)
Material:	Effluent Water Monitoring
Group:	Pollution and environment

CHEMICAL REPORT

Date of starting of Test 27.12..2023

Date of completion of Test: 03.01.2024

Sl. No.	Name of Parameter	Test Methods	CPCB Prescribed Limit for Inland Surface water (Max)		Results	
			ETP	STP	ETP – 19 Outlet Water	STP - 19 Outlet Water
					Date of Collection	Date of Collection
1	pH	IS 3025(P-11) R.A.2009	5.5-9.0	5.5-9.0	7.2 at 19°C	7.8 at 19°C
2	Total Dissolve Solids mg/l	IS 3025(P-16) R.A.2006	N/S	2100	303	206
3	Total suspended solids mg/l	IS 3025(P-17) 1984 R.A.2012	100	200	3.0	5.0
4	Chemical Oxygen Demand mg/l	APHA 23rd EDN 5220 B	250	N/S	8.0	44.0
5	Bio Chemical Oxygen Demand 3 days at 27° C mg/l	IS 3025(P-44), 1993 R.A. 1999	30	30	<3.0	8.8
6	Oil and Grease mg/l	IS 3025(P-39), R.A.2009	10	N/S	3.7	N/R
7	Iron as Fe mg/l	APHA 23rd EDN 3111 B	3.0	3.0	0.962	0.325
8	Manganese as Mn mg/l	APHA 23rd EDN 3111 B	2.0	2.0	<0.03	<0.03
9	Chloride as Cl mg/l	IS 3025, P-32	N/S	N/S	- N/R	32

Tested by:

A. CHATTERJEE

Authorized Signatory

P.DUTTA (Technical Manager)

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GSTIN : 19AAECS3740C2ZJ

TEST REPORT

Report No. - 1054	Date: 04.01.2024
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work-order no. and Date:	MGM/WO/2023/24/11-164 Dated:28/11/2023
Sample receiving date:	26.12.2023
Sub:	EFFLUENT WATER REPORT
Material:	Effluent Water Monitoring

TEST RESULT OF BACTERIOLOGICAL

Date of starting of Test 27.12..2023		Date of completion of Test 04.01.2024		
Sl. No.	Specific Test Performed	Test Method	Permissible Limits as per OPCB (FOR OUT LET)	Test Result STP – 19 Out-let Water DATE- - 14.12.2023
1	Fecal Coliform (MPN/100)	As per IS: 1622-81	<1000	300cfu/100ml

Tested by:

R..Dasgupta

H.Ray

Authorised Signatory

P.DUTTA

(Technical Manager)

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SUPERINTENDENCE CO. OF INDIA (P) LTD.

**ENVIRONMENTAL BASELINE DATA GENERATION
AT**

M/S – M.G.MOHANTY

PROJECT: Patabeda Iron & Manganese Mines (19.425 Ha)

Work Order no.: MGM/CO/2021/217 Dated:- 12/03 /2021

**REPORT
FOR THE MONTH OF NOVEMBER 2023**

Branch Office : AT/P.O : NALDA , DIST : KEONJHAR, ODISHA – 758 042
TEL #: 06767 – 212562, 211456,
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E-mail: supindnalda@rediffmail.com

Regional Office: Plot No.: Y23, Block EP, Sector V, Salt Lake City-7000 91
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Regd. Office: “Everest House”, 7th floor, 46C, Chowringhee Road,
Kolkata – 700 071
Ph: _ (033) 2288-7572, 73/8960/6430/ 1487/1167
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SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

(An ISO 9001 : 2015 Certified)

Regional office : Plot No. Y-23, Block-EP, Sector-V, Salt Lake City, Kolkata-700 091, Phone : (033) 2357-4671/4681/4873/5039/5042

Fax : (033) 2357-4806, E-mail : supind2019@gmail.com, supind50@yahoo.co.in, Website : www.superintendencecoindia.com

Ref.: SUENV/ M.G. MOHANTY (19.425 Ha)/KB /300

Date: 04.12.2023

To
The Mines Manager,
M/s. M.G. Mohanty,
Patabeda Iron Mines (19.425 Ha)
Patabeda, P.O. Malda, P.S. Koiria,
Dist.: Sundergarh, Odisha

Sub: Submission of Test Report for the Month of **NOVEMBER 2023**

Work Order no.: MGM/CO/2021/217 Dated:- 12/03 /2021

Dear Sir,

We are submitting herewith test reports for the month of **NOVEMBER 2023**

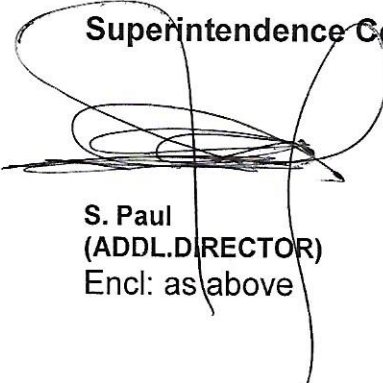
as follows:

- a. Ambient Air Monitoring (5 Parameters).
- b. Fugitive Dust
- c. Noise Monitoring
- d. Surface Water Quality

Thanking you,

With Regards,

Superintendence Co. of India (P) Ltd.


S. Paul
(ADDL.DIRECTOR)
Encl: as above



TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

REPORT NO. : N- 933		ULR-TC806623000001333F	
Name and Address of Customer:		DATE - 04.12.2023	
		M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Ref. no. and Date:	MGM/CO/2021/217	Dated:12/03 /2021	
Sample receiving date:	28.11.2023		
Sub:	Environmental monitoring		
Material:	Ambient Air		
Group:	Atmospheric Pollution		

Date of starting of Test: 28.11.2023

CHEMICAL TEST RESULT

Date of completion of Test 02.12.2023

S.N.	Specific Test Performed	Test Method Specification against which tests are performed	Permissible limit as per NAAQS-2009	core zone		Buffer zone	
				Mines Quarry 09.11.2023	Mines entry point 09.11.2023	Ganua Camp 09.11.2023	Guruda camp 09.11.2023
1.	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	45.61	46.29	38.57	36.48
2.	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	74.18	77.35	65.93	63.45
3	Suspended Particulate Matter SPM (µg/m ³)	IS: 5182 PART-4 1999 RA-2010	-	152.70	161.02	136.47	131.96
4.	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	10.56	12.34	10.75	10.02
5.	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	18.42	19.83	17.31	16.74
6.	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.82	0.86	0.78	0.70

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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GSTIN : 19AAECS3740C2ZJ

TEST REPORT



TC-8066

ULR-TC806623000001334F

Report No.: N- 934		Date – 04.12.2023
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha	
Work Order No. and Date	MGM/CO/2021/217	Dated: 12/03/2021
Date of Sample Received:	28.11.2023	
Sub:	Environment Monitoring	
Material:	Fugitive Dust Emission	
Group:	Atmospheric Pollution	

FUGITIVE DUST EMISSION MONITORING CHEMICAL TEST

Date of starting of test 28.11.2023

Date of completion of 02.12.2023

Sl. No.	Name of Tests	Test Method	Permissib le Limit as per OPCB	Test Result
				NAME OF STATIONS
				FD-1 Crusher Plant
				Sampling Collection Date
				09.11.2023
01	Particulate Matter (µg/m3)	IS:5182, PART-4, 2006, RA-2012	1200 (µg/m3)	864.17

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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TC-8066

TEST REPORT

ULR-TC806623000001336F

REPORT NO. : N - 935	DATE - 04.12.2023
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Ref. no. and Date:	MGM/CO/2021/217 Dated:12/03/2021
Sample receiving date:	28.11.2023
Sub:	Environmental monitoring
Material:	Work zone Noise
Group:	Atmospheric Pollution

TEST REPORT

S. N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level		Location Details (core zone)			
1.	Equivalent Sound level dB(A) Leq	SUP/SO P/4033S D & IS:9989	Standard as per Noise Pollution Regulation Rule-2000		Mines Quarry	Haul Road	D.G. Set	Crusher Plant
			Category of area Zone	Limits in dB(A) Leq	09.11.2023	09.11.2023	09.11.2023	09.11.2023
			1. Industrial	75	62.1	70.0	61.3	70.2
			2. Commercial	65				
			3. Residential	55				
			4. Silent	50				

Tested by:

A. Chatterjee

Authorized Signatory

P. Dutta

(Technical Manager)

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TEST REPORT

Report No N- 936		ULR-TC806623000001260F		DATE - 04.12.2023	
Name and Address of Customer:		M/s. M.G. MOHANTY, Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha			
Work-order no. and Date:		MGM/CO/2021/217		Dated: 12/03/2021	
Sample receiving date:		25.10.2023			
Sub:		Water monitoring			
Material:		Surface Water			
Group:		Water			

CHEMICAL REPORT

Date of starting of Test **25.10.2023**

Date of completion of Test **02.12.2023**

Sl. No.	Specific Test Performed	Test Method	Test Result	
			SW1 Up-Stream Nalla(Kakarpani)	SW2 Down-Stream Nalla(Kakarpani)
			Date of Collection 15.11.2023	Date of Collection 15.11.2023
1	pH	IS :3025,P-11, R.A 2009	6.8	6.9
3	Turbidity(NTU)	IS 3025 (P-10), RA2006	2.3	23.0
3	Alkalinity as CaCo3 mg/l	IS 3025 (P-23), RA2014	21	24
4	Chloride as Cl mg/l	IS 3025 (P-32), RA2009	4	4
5	Total Hardness as CaCo3 mg/l	IS 3025 (P-21), RA2006	13	15
6	Calcium as Ca mg/l	APHA 23rd EDN 3500Ca B	5	6
7	Magnesium as Mg mg/l	APHA 23rd EDN 3500 Mg B	<0.243	<0.243
8	Sulphate as So4 mg/l	APHA 23rd EDN 4500 SO4 E	3.0	6.0
9	Nitrate as No3 mg/l	APHA 23rd EDN 4500 NO3 B	2.5	3.1
10	Fluoride as F mg/l	APHA 23rd EDN 4500 F D	<0.1	<0.1
11	Total dissolve Solids mg/l	IS 3025 (P-16), RA2012	34	48
12	Total Suspended Solids mg/l	APHA 23rd EDN 2540 D	1.0	7.0
13	D.O.	APHA 23rd EDN 4500 O-C	4.0	3.6
14	Iron as Fe mg/l	APHA 23rd EDN 3111 B	0.1698	1.2033
15	Copper as Cu mg/l	APHA 23rd EDN 3111 B & C	<0.05	<0.05
16	Zinc as Zn mg/l	APHA 23rd EDN 3111 B & C	<0.01	<0.01
17	Lead as Pb mg/l	APHA 23rd EDN 3120 B	<0.01	<0.01
18	Cadmium as Cd mg/l	APHA 23rd EDN 3111 B & C	<0.01	<0.01
19	Arsenic as As mg/l	APHA 23rd EDN 3120 B	<0.01	<0.01
20	Mercury as Hg mg/l	IS 3025 (P-48)MURCURY ANALYSER	<0.01	0.0187
21	Chromium as Cr +6mg/l	APHA 23rd EDN 3500 B	<0.05	<0.05
22	Phenolic compound mg/l	APHA 23rd EDN 5530 D	<0.002	<0.002

Tested by:

A. CHATTERJEE

Authorized Signatory

P. DUTTA
(Technical Manager)

- Note :
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GSTIN : 19AAECS3740C2ZJ

TEST REPORT

Report No N- 936		DATE - 04.12.2023	
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha		
Work-order no. and Date:	MGM/CO/2021/217 Dated:12/03/2021		
Sample receiving date:	28.11.2023		
Sub:	Water monitoring		
Material:	Surface Water		
Group:	Water		

CHEMICAL REPORT

Date of starting of Test **28.11.2023**

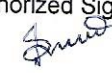
Date of completion of Test 02.12.2023

Sl. No.	Specific Test Performed	Test Method	Test Result	
			SW1 Up-Stream Nalla(Kakarpani)	SW2 Down-Stream Nalla(Kakarpani)
			Date of Collection 15.11.2023	Date of Collection 15.10.2023
23	Temperature	APHA 23 rd EDN 2550 B	18°C	18°C
24	Residual Free Chlorine mg/l	IS 3025 (P-26), RA2009	<1.0	<1.0
25	COD mg/l	APHA 23 rd EDN 5220 B	9.0	14
26	Oil and Grease mg/l	IS 3025 (P-39), RA2009	<0.1	<0.1
26	Aluminium as Al mg/l	APHA 23rd EDN 3500 Al-B	0.1714	1.6271
28	Boron as B mg/l	APHA 23rd EDN 4500 B-B	<1.0	<1.0
29	Manganese as Mn mg/l	APHA 23rd EDN 3111 B	<0.03	<0.03
30	Nickel as Ni mg/l	APHA 23rd EDN 3111 B & C	<0.02	<0.02
31	Cyanide as CN mg/l	APHA 23rd EDN 4500 E	<0.05	<0.05
32	Sulphide as S mg/l	APHA 23rd EDN 4500 S ² -F	N.T	N.T
33	Free Ammonia as N mg/l	IS 3025 (P-34)	N.T	N.T
34	Kjeldahl Nitrogen as N mg/l	IS 3025 (P-34)	3	5
35	Ammonia as N mg/l	IS 3025 (P-34)	<0.02	<0.02

Tested by:


A. CHATTERJEE

Authorized Signatory


P. DUTTA
(Technical Manager)

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SUPERINTENDENCE CO. OF INDIA (P) LTD.

**ENVIRONMENTAL BASELINE DATA GENERATION
AT**

M/S – M.G.MOHANTY

PROJECT: Patabeda Iron & Manganese Mines (19.425 Ha)

Work Order no.: MGM/CO/2021/217 Dated:- 12/03 /2021

**REPORT
FOR THE MONTH OF OCTOBER 2023**

Branch Office : AT/P.O : NALDA , DIST : KEONJHAR, ODISHA – 758 042
TEL #: 06767 – 212562, 211456,
CABLE – IMPARTIAL
E-mail: supindnalda@rediffmail.com

Regional Office: Plot No.: Y23, Block EP, Sector V, Salt Lake City-7000 91
Kolkata – 700 091
Ph. No. : (033) - 2357-1492/4670/4671/4681
Fax: 033- 2357-4806
E-mail: supindkolkata@vsnl.net / supind50yahoo.co.in
Website: www.superintendence.co

Regd. Office: “Everest House”, 7th floor, 46C, Chowringhee Road,
Kolkata – 700 071 .
Ph: _ (033) 2288-7572, 73/8960/6430/ 1487/1167
Fax No : (033) 2288- 9015 / 5894
E-mail: supindkolkata@vsnl.net / supind50@yahoo.co.in
Website: www.superintendence.co



SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

(An ISO 9001 : 2015 Certified)

Regional office : Plot No. Y-23, Block EP, Sector-V, Salt Lake City, Kolkata-700 091, Phone : (033) 2357-4671/4681/4873/5039/5042

Fax : (033) 2357-4806, E-mail : supind2019@gmail.com, supind50@yahoo.co.in, Website : www.superintendencecoindia.com

Ref.: SUENV/ M.G. MOHANTY (19.425 Ha)/KB /293

Date: 09.11.2023

To
The Mines Manager,
M/s. M.G. Mohanty.
Patabeda Iron Mines (19.425 Ha)
Patabeda, P.O. Malda, P.S. Koira,
Dist.: Sundergarh, Odisha

Sub: Submission of Test Report for the Month of **OCTOBER 2023**

Work Order no.: MGM/CO/2021/217 Dated:- 12/03 /2021

Dear Sir,

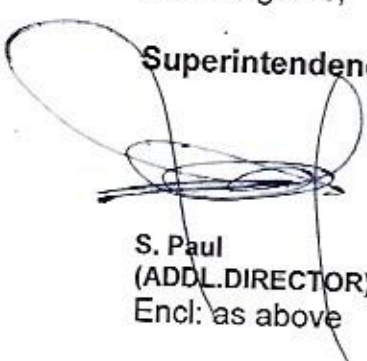
We are submitting herewith test reports for the month of **OCTOBER 2023**
as follows:

- a. Ambient Air Monitoring (5 Parameters).
- b. Fugitive Dust
- c. Noise Monitoring
- d. Surface Water Quality

Thanking you,

With Regards,

Superintendence Co. of India (P) Ltd.


S. Paul
(ADDL.DIRECTOR)
Encl: as above



TC-8066

TEST REPORT

ULR-TC806623000001257F	
REPORT NO. : N- 834	DATE - 09.11.2023
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Ref. no. and Date:	MGM/CO/2021/217 Dated: 12/03 /2021
Sample receiving date:	25.10.2023
Sub:	Environmental monitoring
Material:	Ambient Air
Group:	Atmospheric Pollution

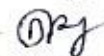
Date of starting of Test: 04.11.2023

CHEMICAL TEST RESULT

Date of completion of Test 08.11.2023

S.N.	Specific Test Performed	Test Method Specification against which tests are performed	Permissible limit as per NAAQS-2009	core zone		Buffer zone	
				Mines Quarry 11.10.2023	Mines entry point 11.10.2023	Ganua Camp 11.10.2023	Guruda camp 11.10.2023
1.	Particulate Matter (PM _{2.5}) (µg/m ³)	IS:5182, PART- 24	60 (µg/m ³) 24 Hrs.	37.21	35.48	30.85	31.79
2.	Particulate Matter PM ₁₀ (µg/m ³)	IS:5182, PART-23, 2006, RA-2017	100 (µg/m ³) 24 Hrs.	58.49	54.32	52.49	54.86
3.	Suspended Particulate Matter SPM (µg/m ³)	IS: 5182 PART-4 1999 RA-2010	-	123.03	113.83	108.73	114.23
4.	Sulphur Di Oxide (SO ₂) (µg/m ³)	IS:5182, PART-2, 2001, RA-2017	80 (µg/m ³) 24 Hrs.	10.74	10.37	9.41	10.28
5.	Nitrogen Di oxide (NO ₂) (µg/m ³)	IS:5182 PART-6,2006, RA-2017	80 (µg/m ³) 24 Hrs.	17.23	18.92	15.64	16.78
6.	Carbon Mono Oxide (CO) (mg/m ³)	IS:5182 PART-10, 1999, RA-2009	4 (mg/m ³) 1 Hrs.	0.67	0.64	0.46	0.52

Tested by:

f - 
A. Chatterjee

Authorized Signatory


P. Dutta (Technical Manager)

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SUPERINTENDENCE COMPANY OF INDIA PRIVATE LIMITED

LABORATORY :

PLOT NO. Y-23, BLOCK-EP, SECTOR-V, SALT LAKE CITY, KOLKATA-700 091
☎ : (033) 2357-4671 / 4681 / 5039 / 5042 • Fax : (033) 2357- 4806
E-mail : supind2019@gmail.com / supind50@yahoo.co.in
Website : www.superintendencecoindia.com



(An ISO 9001 : 2015 Certified)

GSTIN : 19AAECS3740C2ZJ

TEST REPORT



TC-8066

ULR-TC806623000001258F	
Report No.: N- 835	Date – 09.11.2023
Name and Address of Customer:	M/s. M.G. MOHANTY. Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Work Order No. and Date	MGM/CO/2021/217 Dated: 12/03/2021
Date of Sample Received:	25.10.2023
Sub:	Environment Monitoring
Material:	Fugitive Dust Emission
Group:	Atmospheric Pollution

FUGITIVE DUST EMISSION MONITORING CHEMICAL TEST

Date of starting of test 04.11.2023

Date of completion of test 08.11.2023

Sl. No.	Name of Tests	Test Method	Permissible Limit as per OPCB	Test Result
				NAME OF STATIONS
				FD-1 Crusher Plant
				Sampling Collection Date
				11.10.2023
01	Particulate Matter ($\mu\text{g}/\text{m}^3$)	IS:5182, PART-4, 2006, RA-2012	1200 ($\mu\text{g}/\text{m}^3$)	832.49

Tested by:

F-
A. Chatterjee

Authorized Signatory

P. Dutta (Technical Manager)

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 ☎ : (033) 2357-4671/ 4681 / 5039 / 5042 • Fax : (033) 2357- 4806
 E-mail : supind2019@gmail.com / supind50@yahoo.co.in
 Website : www.superintendencecoindia.com



GSTIN : 19AAECS3740C2ZJ

TEST REPORT

ULR-TC806623000001259F

REPORT NO. : N - 836	DATE - 09.11.2023
Name and Address of Customer:	M/s. M.G. MOHANTY, Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha
Ref. no. and Date:	MGM/CO/2021/217 Dated: 12/03/2021
Sample receiving date:	25.10.2023
Sub:	Environmental monitoring
Material:	Work zone Noise
Group:	Atmospheric Pollution

TEST REPORT

S. N.	Name of tests	Reference	Permissible limit as per: Ambient Noise Level	Location Details (core zone)			
			Standard as per Noise Pollution Regulation Rule- 2000	Mines Quarry	Haul Road	D.G. Set	Crusher Plant
1.	Equivalent Sound level dB(A) Leq	SUP/SO P/4033S D & IS:9989	Category of area Zone	11.10.2023	11.10.2023	11.10.2023	11.10.2023
			Limits in dB(A) Leq				
			1. Industrial	75			
			2. Commercial	65			
			3. Residential	55			
			4. Silent	50			
				63.2	71.1	63.1	64.3

Tested by:

P. Chatterjee
A. Chatterjee

Authorized Signatory

P. Dutta
P. Dutta

(Technical Manager)

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TC-8066

GSTIN : 19AAECS3740C2ZJ

TEST REPORT

Report No N- 837		ULR-TC806623000001260F	DATE - 09.11.2023
Name and Address of Customer:	M/s. M.G. MOHANTY, Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha		
Work-order no. and Date:	MGM/CO/2021/217	Dated: 12/03/2021	
Sample receiving date:	25.10.2023		
Sub:	Water monitoring		
Material:	Surface Water		
Group:	Water		

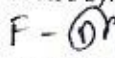
CHEMICAL REPORT

Date of starting of Test **25.10.2023**

Date of completion of Test **01.11.2023**

Sl. No.	Specific Test Performed	Test Method	Test Result	
			SW1 Up-Stream Nalla(Kakarpani)	SW2 Down-Stream Nalla(Kakarpani)
			Date of Collection 15.10.2023	Date of Collection 15.10.2023
1	pH	IS :3025,P-11, R.A 2009	6.7	6.8
3	Turbidity(NTU)	IS 3025 (P-10), RA2006	2.0	25.0
3	Alkalinity as CaCo ₃ mg/l	IS 3025 (P-23), RA2014	20	24
4	Chloride as Cl mg/l	IS 3025 (P-32), RA2009	4	4
5	Total Hardness as CaCo ₃ mg/l	IS 3025 (P-21), RA2006	12	16
6	Calcium as Ca mg/l	APHA 23rd EDN 3500Ca B	5	6
7	Magnesium as Mg mg/l	APHA 23rd EDN 3500 Mg B	<0.243	<0.243
8	Sulphate as So ₄ mg/l	APHA 23rd EDN 4500 SO ₄ E	4.0	7.0
9	Nitrate as No ₃ mg/l	APHA 23rd EDN 4500 NO ₃ B	2.6	3.2
10	Fluoride as F mg/l	APHA 23rd EDN 4500 F D	<0.1	<0.1
11	Total dissolve Solids mg/l	IS 3025 (P-16), RA2012	30	31
12	Total Suspended Solids mg/l	APHA 23rd EDN 2540 D	1.0	8.0
13	D.O.	APHA 23rd EDN 4500 O-C	4.0	3.6
14	Iron as Fe mg/l	APHA 23rd EDN 3111 B	0.1698	1.2033
15	Copper as Cu mg/l	APHA 23rd EDN 3111 B & C	<0.05	<0.05
16	Zinc as Zn mg/l	APHA 23rd EDN 3111 B & C	<0.01	<0.01
17	Lead as Pb mg/l	APHA 23rd EDN 3120 B	<0.01	<0.01
18	Cadmium as Cd mg/l	APHA 23rd EDN 3111 B & C	<0.01	<0.01
19	Arsenic as As mg/l	APHA 23rd EDN 3120 B	<0.01	<0.01
20	Mercury as Hg mg/l	IS 3025 (P-48)MURCURY ANALYSER	<0.01	<0.01
21	Chromium as Cr +6mg/l	APHA 23rd EDN 3500 B	<0.05	<0.05
22	Phenolic compound mg/l	APHA 23rd EDN 5530 D	<0.002	<0.002

Tested by:

F - 
A. CHATTERJEE

Authorized Signatory


P. DUTTA
 (Technical Manager)

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GSTIN : 19AAECS3740C2ZJ

TEST REPORT

Report No N- 837		DATE - 09.11.2023	
Name and Address of Customer:	M/s. M.G. MOHANTY, Patabeda Iron & Manganese Mines (19.425 Ha) Patabeda, P.O. Malda, P.S. Koira, Dist.: Sundergarh, Odisha		
Work-order no. and Date:	MGM/CO/2021/217	Dated:12/03/2021	
Sample receiving date:	25.10.2023		
Sub:	Water monitoring		
Material:	Surface Water		
Group:	Water		

CHEMICAL REPORT

Date of starting of Test 25.10.2023

Date of completion of Test 01.11.2023

Sl. No.	Specific Test Performed	Test Method	Test Result	
			SW1 Up-Stream Nalla(Kakarpani)	SW2 Down-Stream Nalla(Kakarpani)
			Date of Collection 15.10.2023	Date of Collection 15.10.2023
23	Temperature	APHA 23 rd EDN 2550 B	16°C	16°C
24	Residual Free Chlorine mg/l	IS 3025 (P-26), RA2009	<1.0	<1.0
25	COD mg/l	APHA 23 rd EDN 5220 B	8.0	12
26	Oil and Grease mg/l	IS 3025 (P-39), RA2009	<0.1	<0.1
26	Aluminium as Al mg/l	APHA 23 rd EDN 3500 Al-B	0.1724	1.6281
28	Boron as B mg/l	APHA 23 rd EDN 4500 B-B	<1.0	<1.0
29	Manganese as Mn mg/l	APHA 23 rd EDN 3111 B	<0.05	0.043
30	Nickel as Ni mg/l	APHA 23 rd EDN 3111 B & C	<0.02	<0.02
31	Cyanide as CN mg/l	APHA 23 rd EDN 4500 E	<0.05	<0.05
32	Sulphide as S mg/l	APHA 23 rd EDN 4500 S ² -F	N.T	N.T
33	Free Ammonia as N mg/l	IS 3025 (P-34)	N.T	N.T
34	Kjeldahl Nitrogen as N mg/l	IS 3025 (P-34)	3.4	4.5
35	Ammonia as N mg/l	IS 3025 (P-34)	<0.02	<0.02

Tested by:

F-007
A. CHATTERJEE

Authorized Signatory

P. Dutta
P. DUTTA
(Technical Manager)

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15

FORM - O

(See Rule 29 F (2) and 29 L)

REPORT OF MEDICAL EXAMINATION UNDER RULE 29B

Annexure-8

FORM - O (Contd...)

(See Rule 29F(2) and 29L)

REPORT OF MEDICAL EXAMINING AUTHORITY

(To be filled in for every medical examination whether initial or periodical or re-examination or after cure/control of disability)

Certificate No.: EG-0129

Certified that, SHRI JADUMANI SAHU employed as MANAGER (ACCOUNTS) in PATABEDA IRON & MN. MINES of M/s. M. G. MOHANTY Form 'A' No 175 has been examined for an periodical medical examination. He/She appears to be 57 years of age. The findings of examining authority are given in the attached sheet. It is considered that, SHRI JADUMANI SAHU

a) is medically fit for any employment in mines

b) is suffering from _____ and is medically unfit for

- i) any employment in mine, or
ii) any employment below ground or
iii) any employment or work

c) is suffering from _____ and should get this disability cured / controlled* and should be again examined within a period of _____ months. He/She will appear for re-examination with the result of tests of _____ and the opinion of _____ specialist from _____ He/She may be permitted / not permitted to carry on his/her duty during this period.



AADHAAR NO. : 292145925924

Signature of the Examining Authority
Name and Designation in Block Letters
Dr. Sourav Kumar De
Occupational Health Physician
MBBS, DPH, PGCHM, Regd. No-54429 (WBMC)
Trained in ILO Classification of Pneumoconiosis

Annexure to Certificate No.: EG-0129 as a result of Medical Examination on 22-01-2024

Identification of mark : SCAR MARK ON RT. MID LEG

1. General Development: **GOOD**
2. Height: 150 cms. 3. Weight: 60 Kgs.

4. Eyes : (i) Visual acuity-Distant vision (with or without glasses)

Right eye: 6/6 With GlassLeft eye: 6/6 Without Glass

- ii) Any Organic Disease of Eye: **NO**

- iii) Night Blindness **NO**

- iv) Colour Blindness **NO**

- v) Squint **NO**

(* to be tested in special cases)

5. Ears : i) Hearing : Right Ear : **NORMAL** Left Ear : **NORMAL**

- ii) any organic disease : **NO**

6. Respiratory System : Chest Measurement : (i) after full inspiration : 90 cms.

- (ii) after full expiration : 84 cms.

7. Circulatory System : Blood Pressure : 134/80 mm of Hg. Pulse 61 Per Minute

8. Abdomen : Tenderness **NO**

- Liver **NOT PALPABLE**

- Spleen **NOT PALPABLE**

- Tumour **NO**

9. Nervous System : History of fits or epilepsy: **NO**

- Paralysis : **NO**

- Mental Health : **GOOD**

10. Locomotor system : **NAD**

11. Skin : **NAD**

12. Hernia : **NO**

13. Hydrocele : **NO**

14. Any other abnormality : **NAD**

15. Urine : Reaction **ACIDIC**

Albumin : **NIL**Sugar : **NIL**

Audiometry :

Left : **NORMAL**Right : **NORMAL**

P. F. T. :

NORMAL

16. Skiagram of Chest : **ROUNDED CARDIAC APEX, BORDER LINE CARDIOMEGALY**

17. Any other 'C' test considered necessary by examining authority **NO**

18. Any opinion of specialist considered necessary

RT. EYE REFRACTIVE ERROR

CONSTANT USE OF GLASSES

CORRECTED BY GLASSES

CONSULT CARDIOLOGIST

Date : 22-01-2024

Place : EZMA, BARBIL

Dr. Sourav Kumar De

Signature of Examining Authority

MBBS, DPH, PGCHM, Regd. No-54429 (WBMC)

Trained in ILO Classification of Pneumoconiosis

* Delete whatever not applicable.

** One copy of the certificate shall be handed over to the person concerned and other copy shall be sent to Manager of the Mine concerned by registered post and the third copy shall be retained by the examining authority.



Scanned with OKEN Scanner

FORM - O

(See Rule 29 F (2) and 29 L)

REPORT OF MEDICAL EXAMINATION UNDER RULE 29B

Certificate No.:

EG-0133

Certified that, SHRI MADAN MOHAN MAHANTA employed as WELDER in PATABEDA IRON & MN. MINES of M/s. M. G. MOHANTY Form 'A' No 1817 has been examined for an periodical medical examination. He/She appears to be 48 years of age. The findings of examining authority are given in the attached sheet. It is considered that, SHRI MADAN MOHAN MAHANTA

- a) is medically fit for any employment in mines
- b) is suffering from _____ and is medically unfit for
i) any employment in mine, or
ii) any employment below ground or
iii) any employment or work
- c) is suffering from _____ and should get this disability cured / controlled* and should be again examined within a period of _____ months. He/She will appear for re-examination with the result of tests of _____ and the opinion of _____ specialist from _____ He/She may be permitted / not permitted to carry on his/her duty during this period.



AADHAAR NO. : 378427425609

Signature of the Examining Authority
Name and Designation in Block Letters

Dr. Sourav Kumar De
Occupational Health Physician
MBBS, DPH, PGCHM, Regd. No-54429 (WBMC)
Trained in ILO Classification of Pneumoconiosis

Date : 22-01-2024
Place : EZMA, BARBIL

- * Delete whatever not applicable.
** One copy of the certificate shall be handed over to the person concerned and other copy shall be sent to Manager of the Mine concerned by registered post and the third copy shall be retained by the examining authority.

FORM - O (Contd...)

(See Rule 29F(2) and 29L)

REPORT OF MEDICAL EXAMINING AUTHORITY

(To be filled in for every medical examination whether initial or periodical or re-examination or after cure/control of disability)

Annexure to Certificate No.: EG-0133 as a result of Medical Examination on 22-01-2024Identification of mark : BLACK MOLE ON RT. FOREARM

1. General Development: GOOD
2. Height: 167 cms. 3. Weight: 65 Kgs.
4. Eyes : (i) Visual acuity-Distant vision (with or without glasses)
Right eye: 6/9 Without Glass Left eye: 6/6 Without Glass
ii) Any Organic Disease of Eye: NO iii) Night Blindness NO
iv) Colour Blindness NO v) Squint NO
(* to be tested in special cases)
5. Ears : i) Hearing : Right Ear : NORMAL Left Ear : NORMAL
ii) any organic disease : NO
6. Respiratory System : Chest Measurement : (i) after full inspiration : 94 cms.
(ii) after full expiration : 88 cms.
7. Circulatory System : Blood Pressure : 125/82 mm of Hg. Pulse 69 Per Minute
8. Abdomen : Tenderness NO Liver NOT PALPABLE
Spleen NOT PALPABLE Tumour NO
9. Nervous System : History of fits or epilepsy: NO Paralysis : NO Mental Health : GOOD
10. Locomotor system : NAD
11. Skin : NAD
12. Hernia : NO
13. Hydrocele : NO
14. Any other abnormality : NAD
15. Urine : Reaction ACIDIC Albumin : NIL
Sugar : NIL
16. Skiagram of Chest : NORMAL
17. Any other 'C' test considered necessary by examining authority NO
18. Any opinion of specialist considered necessary NO

Audiometry :
Left : NORMAL
Right: NORMAL

P. F. T. :
NORMAL

Date : 22-01-2024
Place : EZMA, BARBIL

Dr. Sourav Kumar De
Signature of Examining Authority
Occupational Health Physician
MBBS, DPH, PGCHM, Regd. No-54429 (WBMC)
Trained in ILO Classification of Pneumoconiosis



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**FORM - O**

(See Rule 29 F (2) and 29 L)

REPORT OF MEDICAL EXAMINATION UNDER RULE 29B

Certificate No.:

EG-0138

Certified that, **SHRI PRAFULLA KUMAR SAHU** employed as **ELECTRICIAN** in **PATABEDA IRON & MN. MINES** of M/s. **M. G. MOHANTY** Form 'A' No **1859** has been examined for an periodical medical examination. He/She appears to be **45** years of age. The findings of examining authority are given in the attached sheet. It is considered that, **SHRI PRAFULLA KUMAR SAHU**

- a) ☒ is medically fit for any employment in mines
- b) ☐ is suffering from _____ and is medically unfit for
- i) any employment in mine, or
- ii) any employment below ground or
- iii) any employment or work
- c) ☐ is suffering from _____ and should get this disability cured / controlled* and should be again examined within a period of _____ months. He/She will appear for re-examination with the result of tests of _____ and the opinion of _____ specialist from _____. He/She may be permitted / not permitted to carry on his/her duty during this period.



AADHAAR NO. : 250406061396

Signature of the Examining Authority
Name and Designation in Block Letters

Dr. Sourav Kumar De
Occupational Health Physician
MBBS, DPH, PGCHM, Regs. No-54429 (WBMC)
Trained in ILO Classification of Pneumoconiosis

Date : 22-01-2024

Place : EZMA, BARBIL

- * Delete whatever not applicable.
- ** One copy of the certificate shall be handed over to the person concerned and other copy shall be sent to Manager of the Mine concerned by registered post and the third copy shall be retained by the examining authority.

FORM - O (Contd...)

(See Rule 29F(2) and 29L)

REPORT OF MEDICAL EXAMINING AUTHORITY

(To be filled in for every medical examination whether initial or periodical or re-examination or after cure/control of disability)

Annexure to Certificate No.: **EG-0138** as a result of Medical Examination on **22-01-2024**Identification of mark : **SCAR MARK ON TIP OF NOSE**

1. General Development: **GOOD**
2. Height: **157** cms. 3. Weight: **62** Kgs.
4. Eyes : (i) Visual acuity-Distant vision (with or without glasses)
- Right eye: **6/6 Without Glass** Left eye: **6/6 Without Glass**
- ii) Any Organic Disease of Eye: **NO** iii) Night Blindness **NO**
- iv) Colour Blindness **NO** v) Squint **NO**

(* to be tested in special cases)

5. Ears : i) Hearing : Right Ear : **NORMAL** Left Ear : **NORMAL**
- ii) any organic disease : **NO**
6. Respiratory System : Chest Measurement : (i) after full inspiration : **92** cms.
- (ii) after full expiration : **87** cms.
7. Circulatory System : Blood Pressure : **134/86** mm of Hg. Pulse **84** Per Minute
8. Abdomen : Tenderness **NO** Liver **NOT PALPABLE**
- Spleen **NOT PALPABLE** Tumour **NO**
9. Nervous System : History of fits or epilepsy: **NO** Mental Health : **GOOD**
- Paralysis : **NO**
10. Locomotor system : **NAD**
11. Skin : **NAD**
12. Hernia : **NO**
13. Hydrocele : **NO**
14. Any other abnormality : **NAD**
15. Urine : Reaction **ACIDIC** Albumin : **NIL**
- Sugar : **NIL**
16. Skiagram of Chest : **NORMAL**
17. Any other 'C' test considered necessary by examining authority **NO**
18. Any opinion of specialist considered necessary **NO**

Left Thumb Impression of the Candidate



Audiometry :

Left : **NORMAL**Right: **NORMAL**

P. F. T. :

NORMAL

Date : 22-01-2024

Place : EZMA, BARBIL

Dr. Sourav Kumar De
Occupational Health Physician
MBBS, DPH, PGCHM, Regs. No-54429 (WBMC)
Trained in ILO Classification of Pneumoconiosis



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CONSTITUTION OF ENVIRONMENTAL CELL

For overseeing the timely and proper compliance under Environment and pollution control laws as well as the action on the directives of MOEF & CC and Odisha State Pollution Control Board, there under from time to time, the Environmental Cell of M/s M.G. Mohanty, Patabeda Iron and Mn. Mines over 19.425 ha. in Patabeda village, Tahasil: Koirā, District Sundergarh is hereby constitute consisting of the following Employees of the firm:

Sl No.	Name of The Employee	Qualification	Contact No.
1	Tanuj Mohanty	MBA (Finance & Operation)	9437047077
2	Chandra Bhanu Das	M.Sc.Tech (Applied Geology)	9437019019
3	Sambhu Prasad Mishra	M.Sc.(Env.)MBA, LLB	7008495676
4	Dillip Kumar Pattanayak	M.Sc.(Geology) PGDCS	7440015245
5	Kiran Kumar Mandal	1 st Class Mines Manager, MBA (Envn. Mgt.)	7440015266
6	Mahendra Mohanty	1 st Class Mines Manager	7440015202
7	Ambuja Kumar Nanda	PGDCA	7440015237
8	Saroj Kumar Shaw	Diploma in Mining	7440015220
9	Nirod Kumar Mohanty	Diploma in Survey	9438175611

The incumbents of the Environmental Cell will carry their above responsibility in addition to their normal duties and responsibility as assigned.

The Environmental Cell is free to invite any employee(s) to its meetings if they feel it is necessary.

For M/s M.G. Mohanty


(R.L. Mohanty)
Managing Partner

Copy to: The Agent, The Mine Manager, Notice Board of Mines Office and Head Office.

2023-24

(A) PREPHARIAL DEVELOPMENT EXPENSES

		CER Activity 2023-24
Sl. No.	Details of Project	
	Teachers Salary for Ganua Seva Shrama School, Guruda Maktab School, Patabeda Project Primary School and	
1	Kenaveta Project Primary School for the Month of April 2023 to March'24	305884.8
	Teacher salary Govt. U.G Highschool Mandajoda	108000
2	Donation paid to following 9 Nos. S.H. Group of Different Village)	0
(a)	Maa Parbati S.H.G.(Gonua)	18000
(b)	Maa Laxmi S.H.G.	18000
(c)	Maa Tarini S.H.G.(Gonua)	18000
(d)	Maa Saraswati S.H.G.	18000
(e)	Padmalaya S.H.G.	18000
(f)	Maa Binapani S.H.G	18000
(g)	Maa Parbati S.H.G.(Sunaposi)	18000
(h)	Jai Maa Tarini S.H.G.(Deoghar)	18000
(i)	Swapneswari S.H.G	18000
	Maa Tarani Trust	17400
	Development fee to Dharanidhar High School, Guruda	72000
	School Vehicle Hire Charges(Dibakar Naik)	326700
	Sports Materials & Financial help for sporting club.	43790.004
	Mid-Day Meal for Govt.U.G.High school,Mandajoda	120000
	Bijaya Pharma (H.O)	35875.8
	Dr.Kananbala Panda consultancy fees	518400
	Health Camp	406637.4
	Envirnmental Expenses:-	0
	STP/ETP Exp	258421.53
	Air,Water & Noise Analysis Charges by Supco.(19.425Ha)	1200000
	Maintainace of Garden & Plantation(19.425Ha)	1150970.78
	Maintainace of Garland Drain & Setting Pit(19.425Ha)	1258650
	Water sprinkling Outside Mines village(19.425Ha)	2070000
	Environmental Clearance Compliance Report	40000
	Dispensary expenses	840000
	Total	8934730.314

90 lakhs

GT

PHOTOGRAPHS



PHOTOGRAPH: 1 PHOTOGRAPH SHOWING VIEW OF DUMP AREA PLANTATION



PHOTOGRAPH: 2 PHOTOGRAPH SHOWING VIEW OF SETTLING POND



PHOTOGRAPH: 3 PHOTOGRAPH SHOWING VIEW OF GARLAND DRAIN AND RETAINING WALL



PHOTOGRAPH: 4 PHOTOGRAPH SHOWING VIEW OF CHECK DAM/RETAING WALL



PHOTOGRAPH: 5 PHOTOGRAPH SHOWING VIEW OF COVER TRUCK FOR TRANSPORTATION



PHOTOGRAPH: 6 PHOTOGRAPH SHOWING VIEW OF DRILLING OPERATION





PHOTO: 7 PHOTOGRAPH SHOWING DRY FOG SYSTEM IN OPERATION



PHOTO: 8 MANGO ORCHART DEVELOPED OUT SIDE ML AREA



PHOTO: 9 PHOTOGRAPH SHOWING ROAD SITE PLANTATION



PHOTO: 10 PHOTOGRAPH SHOWING MINING VIEW



PHOTO: 11 PHOTOGRAPH SHOWING WATER SPRINKLING



PHOTO: 12 PHOTOGRAPH SHOWING WATER SPRINKLING OUT SIDE ML AREA



PHOTO: 13 PHOTOGRAPH SHOWING RAINWATER HARVESTING POND



PHOTO: 14 PHOTOGRAPH SHOWING CRUSHING AND SCREEN PLANT IN OPERATION