

Letter No.: HIL/EC/GP- IV/5/I/2021-22/400

18th November, 2021

The Integrated Regional Office,
Ministry of Environment Forests & Climate Change (MoEF & CC) Aranya Bhawan,
North Block, Sector – 19, Naya Raipur,
Atal Nagar, Chhattisgarh, 492002

Subject: Half Yearly EC Compliance Report for 1 MTPA Under Ground Captive Coal Mine, Gare Palma IV/5 Coal Mines of Hindalco Industries Limited, Village – Milupara, Tehsil – Tamnar, District – Raigarh, Chhattisgarh.

Respected Sir,

This has reference to the Environment Clearance Letter no. – J-11015/8/1998- IA –II. (M) dated 16.04.2015 (Transferred in favour of HIL). We are submitting herewith the Half Yearly EC Compliance Report along with Environmental Monitoring Report (Hard & Soft) for the period from **April 2021 to September 2021** for your kind perusal please.

The receipt of the report may kindly be acknowledged.

Yours faithfully,

For Hindalco Industries Limited,

Govind Kumar (Mine Agent)

Encl.: As Above.

- CC.: 1. Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhawan, Raipur Chhattisgarh.
 - 2. Regional Officer, Chhattisgarh Environment Conservation Board, TV tower Road, Raigarh (CG).
 - 3. Member Secretary, CPCB Parivesh Bhawan, East Arjun Nagar Delhi 110032
 - 4. The Regional Director, Regional Directorate (Central), Bhopal, Central Pollution Control Board (MoEF & CC, GOI), "Parivesh Bhawan" Paryavaran Parishar, E 5, Arera Colony, Bhopal (MP), 462016
 - 5. The Director (Monitoring Cell), Ministry of Environment, Forest & Climate Change, IPB, Aliganj, Jorbagh Road, New Delhi 110003

Compliance Report on conditions of Environment Clearance for Gare-Palma IV/5 coal mining project Transfer by Ministry of Environment, Forests & Climate Change vide letter no. J-11015/8/1998-IA. II (M) Dated: - 16th April 2015 for Under Ground Mining 1.0 Million Ton/Annum Production Capacity.

Sr. No.	Conditions	Status
1	Any change in scope of work will attract the	Noted.
	provisions of Environment Protection Act (EPA),	
	1986 and Environment Impact Assessment	
	Notification, 2006 in conjunction with the	
	subsequent amendments/circulars.	
2	All conditions stipulated in the EC letter No.J-	Noted.
	11015/8/1998-IA.II (M) dated 31st August, 2000	
	shall remain unchanged.	
3	The successful bidder shall be liable, if any, for any	Noted.
	act of violation of the EPA 1986/EIA Notification	
	2006/subsequent amendments and circulars which	
	it has inherited during the transfer.	
4	Successful bidder shall be liable for compliance of all	Noted.
	court directions, if any.	

Compliance Report on conditions of Environment Clearance for Gare-Palma IV/5 coal mining project given by Ministry of Environment, Forests & Climate Change vide letter no. J-11015/8/1998-IA. II (M) Dated: - 31st August 2000 for Under Ground Mining 1.0 Million Ton/Annum Production Capacity

Sr. No.	Conditions	Status
A. S	pecific Conditions	
i	Regular Monitoring of subsidence movement on the surface over working areas and impact on water bodies/vegetation/ structures/ surroundings should be continued till movement ceases completely. In case of observation of any high rates of subsidence movement, appropriate measures should be taken to avoid loss of life and materials. Cracks should be effectively plugged with ballast and clayey soil/ suitable material.	The method of mining at Gare Palma IV/5 coal mine is Bord & Pillar. Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural pattern, water bodies, vegetation, structure, roads and surroundings is being done by internal expert. During the observation no subsidence movement has been observed. In future, if any subsidence movement is found, appropriate effective corrective measures will be taken to avoid loss of life and material. Cracks will be effectively plugged with ballast

		and clayey soil/suitable material if observed. The subsidence study was already carried out for working panel by CSIR – Central Institute of Mining & Fuel Research Dhanbad in May 2019 for GP IV/5 Coal mines.
ii	Adequate underground barrier should be left in consultation with the Director General of Mines & Safety (DGMS). Depillaring should also be carried out after taking approval from DGMS.	Adequate underground barrier as required are being maintained between the working face and the river in consultation with DGMS and also at other places whenever required. Depillaring operation was not carried out during last six months.
iii	Garland drains should be constructed around the waste rock and ore stockpiles to prevent surface run-off.	Garland drain have been constructed around the coal stock yard to prevent the surface run-off.
iv	A Green Belt of adequate width should be raised by planting the local species along the mine boundary, Waste rock dumps, ore stockpile, ventilation fan road and selected open areas in consultation with local DFO/Agriculture Department. Density of tree should be at least 2500 plants per ha.	Plantation in mines area is being done. At present 49604 nos. of trees have been planted within the Mine boundary and other places. Trees species planted are Neem, Mahua, , Jamun, Mango, Guava, Imli,. Drumstick, Teak, Shivan / Ghamar, Sisham, Sirus, Bamboo, Peltafarm, Nilgiri, Amla, Saptaparni,Kathal,kassod tree, Arjuna & Kachnar etc. in consultation with DFO. Plantation has been carried out @2500 per hectare and will also be ensure in future. Plantation details enclosed as Annexure –1.
V	Compensation to the 14 land losers from whom private land will be acquired should be paid as per the state government norms.	Compensation to the 14 land losers has been paid by the company.
vi	The project authority should conduct a subsidence estimation study and submit the report to the Ministry within six months.	Subsidence estimation study report has been submitted to the Ministry by Prior allottee.
vii	The project proponent will construct "Check dams "at the sites proposed by the State Ground water Department in their report. While undertaking the proposed	As per requirement the check dam site will be constructed in consultation with state forest department and Ground water

	mining, the construction of the check dams should be carried out in with Ground water survey department, Government of MP (presently Chhattisgarh) and should have necessary financial provision and technical expertise. This should be communicated to the MoEF and CGWB.	survey department, Government of Chhattisgarh and will be communicated to MOEF& CC and CGWA.
viii	Regular monitoring of the Ground water level and quality should be carried out by establishing a network of existing wells and constructing new Piezometer during the mining operations. The interval of monitoring should be four times a year- Pre monsoon (April to May), Monsoon (August), Post Monsoon (November) and winter (January). The data thus collected may be sent regularly to MoEF and CGWB for information.	Being Complied. Regular monitoring of groundwater level and quality of the area is being carried out by establishing a network of existing wells/Piezometers. The Ground water level (from April 2021 to September 2021) and quality Monitoring report of Pre - Monsoon (May 21) and Monsoon (August 21) is attached as Annexure No2. Non-working mine pit has been developed as rain water harvesting structure in the mines.
		Quarterly monitoring report of Ground Water Level (from April 2021 to June 2021) and (from July 2021 to September 2021) & GW Quality Monitoring for the month of Pre -Monsoon (May 21) and Monsoon (August 21) has been submitted to MoEF & CC, CPCB and CECB on quarterly within one month of monitoring basis. Attached as Annexure No. – 3.
ix	Digital processing of the entire lease using remote sensing technique should be regularly once in three years for monitoring land use pattern and report submitted to MoEF and its regional officer.	Report on Assessment of Land Use / Land Cover using High Resolution Satellite Imagery for the GP Mine IV/5 Coal Mine was carried out by IndiGEO Consultants, Bangalore in the month of December 2019 and the report was submitted to your office dated 27 May 2020.
Х	A detailed mine decommissioning plan should be submitted to the MoEF, five years in advance for approval.	Detailed mine decommissioning plan will be submitted to the Ministry of Environment and forests, five years in advance for approval as applicable.

B. Gene	ral Conditions	
i	No change in mining technology and scope of working should be made without prior approval of the MoEF.	Noted and being complied.
ii	No change in the calendar plan including excavation quantum of mineral coal and waste should be made.	Noted.
iii	Four ambient air quality stations should be established in the core zone as well as the buffer zone for RPM, SPM, SO2, NOx & CO Monitoring. Location of stations should be decided based on the meteorology data, topographical features and environmental and ecologically sensitive targets in consultation with the State Pollution Control Board.	Four ambient air quality monitoring stations have been established in consultation with the State Pollution Control Board and regular monitoring is being carried out. Copy of AAQ Monitoring Report from the period April 2021 to September 2021 is enclosed as Annexure -4.
iv	Data of ambient air quality (RPM, SPM, SO2, NOx & CO) should be regularly submitted to the Ministry including its Regional Officer at Bhopal (Currently Raipur) and the State Pollution Control Board & Central Pollution Control Board (Currently Raipur).	Four ambient air quality monitoring stations have been established and regular monitoring is being carried out. Reports are being periodically furnished to SPCB. Copy of Monitoring Report for the period from April 2021 to September 2021 is already enclosed.
V	Drill should be wet operated.	Complied.
vi	Fugitive dust emission from all the sources should be controlled, regularly monitored and the data recorded properly. Water spraying arrangement on haul roads, Wagons, loading dump trucks (loading and unloading) should be provided and properly maintained.	Fixed type water sprinkler has been provided at all along the roads, and loading points etc. to control the fugitive dust emission. Photographs of fixed type of water sprinklers at GP IV/5 Coal Mines is attached as Annexure – 4A
vii	Adequate measures should be taken for control of noise level below 80db in the work environment. Workers engaged in blasting and drilling operation, operations of HEMM etc. should be provided with ear plugs/ muffs	Ear muffs/plugs has been provided to the all workers engaged in blasting and drilling operations, operations of HEMM etc. The Noise monitoring report for the period from April 2021 to September 2021 is enclosed as Annexure - 5.
viii	Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform on the standards prescribed under GSR 422 dated 19.05.1993 and	We have constructed 05 Nos. of settling pond & 02 nos of ETP (Capacity 200 m3 / Hr Each) along with Lamella clarifier with chemical dosing arrangement for the

	31.12.1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents in to the pond.	treatment of mine seepage water, the treated water is being used for spraying / sprinkling on mines roads and also for greenbelt development inside the mine premises & remaining treated water from ETP is being distributed to the nearby villagers for irrigation & agriculture purpose (other than drinking). Copy of Analysis Report (ETP Inlet & Outlet) for the period from April 2021 to September 2021 is attached as Annexure – 6 Photographs of Treatment Facility at GP IV/5 Coal Mines is attached as Annexure – 6A Also HIL provided the Sewage Treatment Plant of capacity 50 m3/day at Kondkel to treat the domestic waste water generated from Toilets, bathroom etc. Copy of Analysis Report (Inlet & Out of STP) for the period from April 2021 to September 2021 is attached as Annexure – 6AA Photographs of Sewage Treatment Plant installed at GP IV/5 Coal Mines (Kondkel) is attached as Annexure – 6AAA
ix	Acid mine water if any has to be treated and disposed off after conforming to the standards prescribed by the competent authority.	There is no acid mine water. Provided ETP (Capacity 200 m3 / Hr Each) along with Lamella clarifier with chemical dosing arrangement for the treatment of mine seepage water and the analysis report of treated water quality are being periodically furnished to SPCB.
Х	Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board	We have engaged CECB & MoEF&CC approved and NABL accredited Laboratory I.e. M/s Ultimate Envirolytical Solutions Raipur to carried out the mine environmental parameters monitoring.

		Approval letter of Monitoring Agency from CECB Raipur, MoEF&CC & NABL accredited Laboratory certificate is attached as Annexure No. – 7
xi	Personnel working in dust area should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance of the workers should be undertaken periodically to observe any contractions due to exposure to coal dust and take corrective measures if needed.	Personnel working in dusty areas are wearing protective respiratory devices and they have also been provided with adequate training and information on safety and health aspect. Occupational health surveillance program of the workers is being undertaken periodically to observe any contraction due to exposure to coal dust and corrective measures will been taken accordingly.
xii	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.	A separate Environmental Management Department is functioning at Coal Mine under the direct control of a senior executive.
xiii	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to Ministry.	The funds earmarked for environmental protection measures has been budgeted separately and not been diverted for other purposes. Environmental Expenditure details from April 2021 to September 2021 is enclosed as Annexure – 8
xiv	The Regional Officer of the ministry located at Bhopal (currently Raipur) shall monitor compliance of the stipulated conditions. The project authorities should extent full co-operation to the officer (s) of the Regional Officer by furnishing requisite data information / monitoring reports	Agreed and cooperation will be extended on time to time.
xv	A copy of the clearance letter will be marked to concerned Panchayat/ local NGO if any from whom suggestion / representation has been received while processing the proposal	Complied by Prior Allottee.
xvi	State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre	Complied by Prior Allottee.

	and Collector's Office/ Tehsildar's office for 30 days	
xvii	The project authorities should advertise at least two local newspapers widely circulated around the project one of which shall be in vernacular language of the locality concerned informing that the project has been accorded environmental clearance and the copy of the clearance letter is available with the State Pollution Control Board and may also be seen at web site of the MoEF at http:/envfor.nic.in	Complied by Prior Allottee.

Annexure - 1

Hindalco Industries Limited Green Belt Development Status

Year wise plantation detail of Gare Palma IV/5 Coal Mine						
Year	Location	ocation Survival Rate (%)	Number of Plant		Sapling Details	
		Planted (Approx.)	` '	Survived	Plantation (hectare)	. •
Upto 2015		30000	82.00	24600	9.84	
2016		2000	85.00	1700	0.68	
2017	Coal mine	5000	80.00	4000	1.60	Neem, Mahua, , Jamun, Mango, Guava, Imli,. Drumstick, Teak,
2018	lease area	5000	85.00	4250	1.70	
2019		5000	90.00	4500	1.80	Shivan / Ghamar, Sisham, Sirus,
2020		1100	100.00	1100	0.44	Bamboo, Peltafarm, Nilgiri, Amla
2021		1504	98.00	1474	0.59	Saptaparni, Kathal, kassod tree,
49604 83.91 41624 16.6 Total						
lote : Gap filling of plants is a continous process						

Green Belt Development Photographs









Annexure - 1



Annexure - 2

Ground Water Level Monitoring Report in and around the Coal Mine Area (From April 2021 to June 2021)

			In Meters			
Sr. No.	Location	Types of Structure	Ground Water level (BGL) April. 2021	Ground Water level (BGL) May. 2021	Ground Water level (BGL) June. 2021	
1	Bankheta (Near HIL Office)	Borewell/AWLR	11.87	12.00	10.06	
2	Banjikhol (Near Office)	Borewell/ AWLR	23.91	24.18	24.26	
3	Milupara (Near Office)	Borewell/ AWLR	13.07	13.27	12.39	
4	HIL Staff Quarter	Borewell/ AWLR	8.08	8.50	7.20	
5	Milupara Village (PHC-HIL)	Dugwell	7.14	7.20	3.20	
6	Sakta Village (Near Primary School)	Dugwell	4.82	4.98	2.10	
7	Sidarpara Village (Near Primary School)	Dugwell	11.80	12.40	5.66	
8	Beljor Village	Dugwell	8.60	8.80	5.85	

Ground Water Level Monitoring Report in and around the Coal Mine Area (From July 2021 to Sep 2021)

Sr. No.	Location	Types of Structure	In Meters		
			Ground Water level (BGL) July 2021	Ground Water level (BGL) August 2021	Ground Water level (BGL) Sep 2021
1	Bankheta (Near HIL Office)	Borewell/ AWLR	8.37	7.42	5.45
2	Banjikhol (Near Office)	Borewell/ AWLR	24.30	24.50	24.70
3	Milupara (Near Office)	Borewell/ AWLR	7.90	9.48	8.58
4	HIL Staff Quarter	Borewell/ AWLR	4.40	4.30	4.85
5	Milupara Village (PHC-HIL)	Dugwell	1.19	0.95	0.84
6	Sakta Village (Near Primary School)	Dugwell	1.71	2.14	1.84
7	Sidarpara Village (Near Primary School)	Dugwell	3.28	5.10	4.95
8	Beljor Village	Dugwell	5.18	4.72	4.24



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Name & Address Of The Customer	REPORT NO UES/TR/21-22/0425		
то,	LAB REF NO	UES/21-22/W/0525	
HINDALCO INDUSTRIES LIMITED,	DATE OF SAMPLING	29/05/2021	
GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA,	DATE OF RECEIPT	30/05/2021	
POST -MILUPARA,	DATE OF REPORT	03/06/2021	
DISTT RAIGARH (C.G.) 496107.	DATE OF ANALYSIS	START: 31/05/2021	END: 03/06/2021

SAMPLE TYPE	GROUNDWATER	ORDER /REFERENCE:	N/PO/SRV/2021/0035, DTD. 21-AUG-2020
CUSTMER SAMPLE ID	BANKHETA MINE (PIEZOMETER) AWLR	SAMPLE CONDITION AT RECEIPT	OR
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE SEALED	SAMPLE COLLECTED BY	CHEMIST
SAMPLING PROCEDURE	IS:3025(PART I):1987 RA 2003; APHA 22ND ED. 2012, 1060-B, 1-39	QUANTITY RECEIVED	5 LTR

SAMPLE DETAILS

Report No.0425

	TEST REPORT							
SR.	PARAMETER	4		AS PER IS				
NO.		UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT		
1	Colour	Hazen	IS:3025:(Part-4)	5	15	<1		
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeable		
3	Taste		IS 3025(part-8)	Agreeable	Agreeable	Agreeable		
4	рН	-	APHA 22 nd Ed.2012,4500-H ⁺ -B, 4-92	6.5-8.5	NoRelaxatio n	6.74		
5	Turbidity	NTU	APHA 22 nd Ed.2012,2130-B,2-13	1	5	0.98		
6	Electrical Conductivity	μS/cm	IS 3025(part-14):1984, RA 2013	-	-	134.0		
7	Residual Chlorine	mg/Lit	APHA 22 nd Ed.2012,4500-CI-G, 4 - 69	0.2	1	N.D.		
8	Total Solid	mg/Lit	APHA 22 nd Ed.2012,2540- B, 2- 64	*	-	84.1		
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	82.0		
10	Total Suspended Solids	mg/Lit	APHA 22 nd Ed.2012,2540- D, 2- 66	-	-	2.1		
11	Alkalinity Total (as CaCO ₃)	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	26.0		
12	Total Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,2340-C, 2-44,45	200	600	38.0		
13	Calcium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500–Ca-B, 3-67	-	-	16.0		
14	Magnesium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	-	-	22.0		
15	Calcium (as Ca)	mg/Lit	APHA 22 nd Ed.2012,3500–Ca-B, 3-67	75	200	6.4		
16	Magnesium (as Mg)	mg/Lit	APHA 22 nd Ed.2012,3500–Mg-B, 3-84	30	100	5.3		
17	Chloride (as CI)	mg/Lit	APHA 22 nd Ed.2012,4500-CI-B, 4-72	250	1000	10.9		
18	Sulphate (as SO ₄)	mg/Lit	APHA 22 nd Ed.2012,4500–SO ₄ -E, 4-190	200	400	9.6		
19,	Nitrate (as NO ₃)	mg/Lit	APHA 22 nd Ed.2012,4500-NO ₃ -B, 4-122	45	NoRelaxatio n	0.48		
20	Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P-C, 4-153	-	-	N.D.		
21	Sodium (as Na)	mg/Lit	APHA 22nd Ed.2012,3500–Na-B, 3-97	-	-	12.6		
22	Potassium (as K)	mg/Lit	APHA 22 nd Ed.2012,3500-K-B, 3-	7.	-	1.25		

Format No.: UES/FORM/09



HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph: 0771 - 4027777 | Email: ultimatenviro@gmail.com

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Report No.0425

SR.				AS PER IS	10500:2012	
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESUL
			87			
23	Boron (as B)	mg/Lit	APHA 22 nd Ed.2012,4500-B-B, 4- 25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 nd Ed.2012,3111-B,3-18	0.3	NoRelaxatio n	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.10
26	Manganese (as Mn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.1	0.3	N.D.
27	Lead (as Pb)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.01	NoRelaxatio	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 nd Ed.2012,3500-Ni, 3-	0.02	n No	N.D.
29	Zinc (as Zn)	mg/Lit	108 APHA 22 nd Ed.2012,3111-B, 3-18	5	Relaxation	
30	Copper (as Cu)	mg/Lit	APHA 22 Ed.2012,3111-B, 3-18	0.05	1.5	N.D.
			APHA 22 nd Ed.2012,3500-Cd, 3-		NoRelaxatio	N.D.
31	Cadmium (as Cd)	mg/Lit	105	0.003	n	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 nd Ed.2012,3112-B, 3-23	0.001	NoRelaxatio n	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	NoRelaxatio n	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22 nd Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxatio n	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 nd Ed.2012,5540-C, 5-53	0.2	1.0	N.D.
37	Phenolic Compound (as C ₆ H ₅ OH)	mg/Lit	APHA 22 nd Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 nd Ed.2012,6440-6-93	0.0001	NoRelaxatio n	N.D.
39	Mineral Oil	mg/Lit	IS 3025 (part-39) : 1991, RA 2003	0.5	No Relaxation	N.D.
40	Oil & Grease	mg/Lit	IS 3025 (Part 39):1991, RA 2003	-	-	N.D.
1icro	biological Analysis	1	2003			
1	Total Coliforms	MPN/ 100 ML	IS:1622:1981: RA:2019		detectable in ml sample	Absent
2	Faecal Coliform	MPN/ 100ml	IS:1622:1981: RA:2019		detectable in ml sample	Absent
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019	Shall not be	detectable in ml sample	Absent
esti	cides			5/1/ 2001		
1	p,p DDT	µg/L	US EPA 508-1995		1	N.D.
2	o.p DDT	µg/L	US EPA 508-1995		1	N.D.
3	p,pDDE	µg/L	US EPA 508-1995		1	N.D.
4	p,p DDD	µg/L	US EPA 508-1995		1	N.D.
5	O,p DDD	µg/L	US EPA 508-1995		1	N.D.
6.	Gamma-HCH (Lindane)	µg/L	US EPA 508-1995		2	N.D.
7	Alpha-HCH	µg/L	US EPA 508-1995	0.	01	N.D.
8	Beta-HCH	µg/L	US EPA 508-1995	0.	04	N.D.
9	Delta HCH	µg/L	US EPA 508-1995	0.	04	N.D.



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Report No.0425

			TEST REPORT	•		
SR.	Maria September 1	DISTER !		AS PER IS	10500:2012	
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
10	Alpha-Endosulfan	µg/L	US EPA 508-1995	0	.4	N.D.
11	Beta-Endosulfan	µg/L	US EPA 508-1995	0	.4	N.D.
12	Endosulfansulphate	µg/L	US EPA 508-1995	0	.4	N.D.
13	Monocrotophos	µg/L	US EPA 8141A-1994		1	N.D.
14	Ethion	µg/L	US EPA 8141A-1994		3	N.D.
15	Chloropyrifos	µg/L	US EPA 8141A-1994	3	0	N.D.
16	Phorate	µg/L	US EPA 8141A-1994	2		N.D.
17	Phoratesulphoxide	µg/L	US EPA 8141A-1994	-		N.D.
18	Phoratesulphone	µg/L	US EPA 8141A-1994			N.D.
19	2,4-D	µg/L	US EPA 515.1-1995	3	0	N.D.
20	Alachlor	µg/L	US EPA 508- 1995	2	0	N.D.
21	Atrazine	µg/L	US EPA 532-2000		2	N.D.
22	Methyl parathion	µg/L	US EPA 8141A-1994	0.	.3	N.D.
23	Methyl paraxone	µg/L	US EPA 8141A-1994			N.D.
24	Malathion	µg/L	US EPA 8141A-1994	19	90	N.D.
25	Malaoxon	µg/L	US EPA 8141A-1994		-	
26	Aldrin	µg/L	US EPA 508- 1995	0.0	03	N.D.
27	Dieldrin	µg/L	US EPA 508-1995	0.0	03	N.D.

Note: mg/lit.:milligram per liter, N.D.: Not Detected.

03 06 202

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for about the only.

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

---End of the test report-



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Name & Address Of The Customer

TO,

HINDALCO INDUSTRIES LIMITED,

GARE PALMA – IV/4, COAL MINE,

VILLAGE – BANKHETA,

POST -MILUPARA,

DISTT. - RAIGARH (C.G.) 496107.

REPORT NO	UES/TR/21-22/0	0426
LAB REF NO	UES/21-22/W/05	526
DATE OF SAMPLING	29/05/2021	
DATE OF RECEIPT	30/05/2021	
DATE OF REPORT	03/06/2021	
DATE OF ANALYSIS	START: 31/05/2021	END: 03/06/2021

		SAME	LE DETAILS		
SAMPLE TYPE	GROUND WATER		ORDER /REFERENCE:	N/PO/SRV/2021/0035, DTD. 21-AUG-2020	
CUSTMER SAMPLE ID	BANJIKHOL MINE (PIEZOMET	er) awlr	SAMPLE CONDITION AT RECEIPT	OK	
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY	CHEMIST	
SAMPLING PROCEDURE	IS:3025 (PART I):1987 RA APHA 22ND ED. 2012, 106		QUANTITY RECEIVED	5 LTR	

Report No. 0426

SR.	PARAMETER	4		AS PER IS	10500:2012	
NO.		UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
1	Colour	Hazen	IS:3025:(Part-4)	5	15	<1
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeable
3	Taste		IS 3025(part-8)	Agreeable	Agreeable	Agreeable
4	рН	-	APHA 22 nd Ed.2012,4500-H ⁺ -B, 4-92	6.5-8.5	NoRelaxation	6.81
5	Turbidity	NTU	APHA 22 nd Ed.2012,2130-B,2-13	1	5	3.6
6	Electrical Conductivity	µS/cm	IS 3025(part-14):1984, RA 2013	-	-	148.0
7	Residual Chlorine	mg/Lit	APHA 22 nd Ed.2012,4500-CI-G, 4 - 69	0.2	1	N.D.
8	Total Solid	mg/Lit	APHA 22 nd Ed.2012,2540- B, 2- 64	-	-	95.8
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	94.0
10	Total Suspended Solids	mg/Lit	APHA 22 nd Ed.2012,2540- D, 2- 66	-	-	1.8
11	Alkalinity Total (as CaCO ₃)	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	36.0
12	Total Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,2340-C, 2-44,45	200	600	66.0
13	Calcium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca-B, 3-67	-	-	34.0
14	Magnesium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	-	-	32.0
15	Calcium (as Ca)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca-B, 3-67	75	200	13.6
16	Magnesium (as Mg)	mg/Lit	APHA 22 nd Ed.2012,3500–Mg-B, 3-84	30	100	7.77
17	Chloride (as CI)	mg/Lit	APHA 22 nd Ed.2012,4500-CI-B, 4-72	250	1000	13.9
18	Sulphate (as SO ₄)	mg/Lit	APHA 22 nd Ed.2012,4500-SO ₄ -E, 4-190	200	400	18.6
19'	Nitrate (as NO ₃)	mg/Lit	APHA 22 nd Ed.2012,4500-NO ₃ - B,4-122	45	NoRelaxation	3.1
20	Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P-C, 4-153	-	-	N.D.
21	Sodium (as Na)	mg/Lit	APHA 22nd Ed.2012,3500–Na-B, 3-97	-	-	12.6



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Report No. 0426

			TEST REPORT			
SR.				AS PER IS		
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
22	Potassium (as K)	mg/Lit	APHA 22 nd Ed.2012,3500-K-B, 3-87	-	-	0.54
23	Boron (as B)	mg/Lit	APHA 22 nd Ed.2012,4500-B-B, 4-25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 nd Ed.2012,3111-B,3-18	0.3	NoRelaxation	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	N.D.
26	Manganese (as Mn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.1	0.3	N.D.
27	Lead (as Pb)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.01	NoRelaxation	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 nd Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 nd Ed.2012,3500-Cd, 3- 105	0.003	NoRelaxation	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 nd Ed.2012,3112-B, 3-23	0.001	NoRelaxation	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	NoRelaxation	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22 nd Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxation	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 nd Ed.2012,5540-C, 5-53	0.2	1.0	N.D.
37	Phenolic Compound (as C ₆ H ₅ OH)	mg/Lit	APHA 22 nd Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 nd Ed.2012,6440-6-93	0.0001	NoRelaxation	N.D.
39	Mineral Oil	mg/Lit	IS 3025 (part-39): 1991, RA 2003	0.5	No Relaxation	N.D.
40	Oil & Grease	mg/Lit	IS 3025 (Part 39):1991, RA 2003,	-	-	N.D.
licro	biological Analysis					
1	Total Coliforms	MPN/ 100 ML	IS:1622:1981: RA:2019		etectable in any I sample	Absent
2	Faecal Coliform	MPN/ 100ml	IS:1622:1981: RA:2019		etectable in any I sample	Absent
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019		etectable in any sample	Absent
estic	ides				A	
1	p,p DDT	µg/L	US EPA 508-1995		1	N.D.
2	o.p DDT	µg/L	US EPA 508-1995		1	N.D.
3	p,pDDE	µg/L	US EPA 508-1995		1	N.D.
4	p,p DDD	µg/L	US EPA 508-1995		1	N.D.
5	O,p DDD	µg/L	US EPA 508-1995		1	N.D.
6	Gamma-HCH (Lindane)	µg/L	US EPA 508-1995		2	N.D.
7	Alpha-HCH	µg/L	US EPA 508-1995	0	.01	N.D.
8	Beta-HCH	µg/L	US EPA 508-1995		.04	N.D.
9	Delta HCH	µg/L	US EPA 508-1995	0	.04	N.D.
10	Alpha-Endosulfan	µg/L	US EPA 508-1995	C).4	N.D.



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Report No. 0426

SR.				AS PER IS	10500:2012	
NO. PARAMETE	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
11	Beta-Endosulfan	µg/L	US EPA 508-1995	0	.4	N.D.
12	Endosulfansulphate	µg/L	US EPA 508-1995	0	.4	N.D.
13	Monocrotophos	µg/L	US EPA 8141A-1994		1	N.D.
14	Ethion	µg/L	US EPA 8141A-1994		3	N.D.
15	Chloropyrifos	µg/L	US EPA 8141A-1994	30		N.D.
16	Phorate	µg/L	US EPA 8141A-1994	2		N.D.
17	Phoratesulphoxide	µg/L	US EPA 8141A-1994	-		N.D.
18	Phoratesulphone	µg/L	US EPA 8141A-1994	-		N.D.
19	2,4-D	µg/L	US EPA 515.1-1995	3	0	N.D.
-20	Alachlor	µg/L	US EPA 508- 1995	2	0	N.D.
21	Atrazine	µg/L	US EPA 532-2000		2	N.D.
22	Methyl parathion	µg/L	US EPA 8141A-1994	0.	.3	N.D.
23	Methyl paraxone	µg/L	US EPA 8141A-1994			N.D.
24	Malathion	µg/L	US EPA 8141A-1994	190		N.D.
25	Malaoxon	µg/L	US EPA 8141A-1994	-		N.D.
26	Aldrin	µg/L	US EPA 508- 1995	0.03		N.D.
27	Dieldrin	µg/L	US EPA 508-1995	0.0	03	N.D.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for 15days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked to abbre test(s) only.

PREPARED BY 06 202

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

202

End of the test report-



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Name & Address Of The Customer
TO,
HINDALCO INDUSTRIES LIMITED,
GARE PALMA – IV/5, MILUPARA
U/G COAL MINE,VILLAGE – MILUPARA,
BLOCK-TAMNAR,
DISTT. - RAIGARH (C.G.) 496107

REPORT NO UES/TR/21-22*/0462

LAB REF NO UES/21-22/W/0562

DATE OF SAMPLING 29/05/2021

DATE OF RECEIPT 30/05/2021

DATE OF REPORT 03/06/2021

DATE OF ANALYSIS START:31/05/2021 END:03/06/2021

	SAMPL	E DETAILS	
SAMPLE TYPE	GROUND WATER	ORDER /REFERENCE:	M/PO/SRV/2021/0044, DTD. 21-AUG-2020
CUSTMER SAMPLE ID	NEAR MILUPARA MINES OFFICE PIEZOMETER -AWLR	SAMPLE CONDITION AT RECEIPT	OR
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SAMPLE COLLECTED BY	CHEMIST
SAMPLING PROCEDURE	IS:3025(PART I):1987 RA 2003; APHA 22ND ED. 2012, 1060-B, 1-39	QUANTITY RECEIVED	5 LTR

REPORT NO. -0462

SR.		UNIT		AS PER IS		
NO.	PARAMETER		METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
1	Colour	Hazen	IS:3025:(Part-4)	5	15	<1
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeable
3	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeable
4.	pH	-	APHA 22 nd Ed.2012,4500-H ⁺ -B, 4-92	6.5-8.5	NoRelaxation	6.58
5	Turbidity	NTU	APHA 22 nd Ed.2012,2130-B,2-13	1	5	2.8
6	Electrical Conductivity	μS/cm	IS 3025(part-14):1984, RA 2013	-	-	176.0
7	Residual Chlorine	mg/Lit	APHA 22 nd Ed.2012,4500-CI-G,4 - 69	0.2	1	N.D.
8	Total Solid	mg/Lit	APHA 22 nd Ed.2012,2540- B, 2- 64	<u>u</u>	-	110.1
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	108.0
10	Total Suspended Solids	mg/Lit	APHA 22 nd Ed.2012,2540- D, 2- 66	-	-	2.1
11	Alkalinity Total (as CaCO ₃)	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	26.0
12	Total Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,2340-C, 2-44,45	200	600	50.0
13	Calcium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca-B, 3-67	-	-	38.0
14	Magnesium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	-	-	12.0
15	Calcium (as Ca)	mg/Lit	APHA 22 nd Ed.2012,3500–Ca-B, 3-67	75	200	15.2
16	Magnesium (as Mg)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	30	100	2.9
17	Chloride (as CI)	mg/Lit	APHA 22 nd Ed.2012,4500-CI-B, 4-72	250	1000	9.9
18	Sulphate (as SO ₄)	mg/Lit	APHA 22 nd Ed.2012,4500-SO ₄ - E,4-190	200	400	13.1
19	Nitrate (as NO ₃)	mg/Lit	APHA 22 nd Ed.2012,4500-NO ₃ -B, 4-122	45	NoRelaxation	2.0
20	Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P-C, 4-153	-	=	N.D.



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REPORT NO. -0462

			TEST REPORT			
				AS PER IS	10500:2012	
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
20	Sodium (as Na)	mg/Lit	APHA 22ndEd.2012,3500-Na-B, 3-97	-	-	5.6
21	Potassium (as K)	mg/Lit	APHA 22 nd Ed.2012,3500-K-B, 3-87	-	-	0.69
22	Boron (as B)	mg/Lit	APHA 22 nd Ed.2012,4500-B-B, 4- 25	0.5	1.0	N.D.
23	Iron (as Fe)	mg/Lit	APHA 22 nd Ed.2012,3111-B,3-18	0.3	NoRelaxation	N.D.
24	Fluoride (as F)	mg/Lit	APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.12
25	Manganese (as	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.1	0.3	N.D.
26	Lead (as Pb)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.01	NoRelaxation	N.D.
27	Nickel (as Ni)	mg/Lit	APHA 22 nd Ed.2012,3500-Ni, 3-	0.02	No Delawatian	N.D.
28	Zinc (as Zn)	mg/Lit	108 APHA 22 nd Ed.2012,3111-B, 3-18	5	Relaxation 15	N.D.
29	Copper (as Cu)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.05	1.5	N.D.
30	Cadmium (as Cd)	mg/Lit	APHA 22 nd Ed.2012,3500-Cd,3-	0.003	NoRelaxation	N.D.
31	Mercury (as Hg)	mg/Lit	APHA 22 nd Ed.2012,3112-B, 3-23	0.001	NoRelaxation	N.D.
32	Arsenic (as As)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	0.05	N.D.
33	Selenium (as Se)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	NoRelaxation	N.D.
34	Chromium (as Cr)	mg/Lit	APHA 22 nd Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxation	N.D.
35	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 nd Ed.2012,5540-C, 5-53	0.2	1.0	N.D.
36	Phenolic Compound (as C ₆ H ₅ OH)	mg/Lit	APHA 22 nd Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
37	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 nd Ed.2012,6440-6-93	0.0001	NoRelaxation	N.D.
38	Mineral Oil	mg/Lit	IS 3025 (part-39) : 1991, RA 2003	0.5	No Relaxation	N.D.
39	Oil & Grease	mg/Lit	IS 3025 (Part 39):1991, RA 2003	-	-	N.D.
Micro	biological Analysis					
1	Total Coliforms	MPN/ 100 ML	IS:1622:1981: RA:2019		detectable in any	Absent
2	Faecal coliform	MPN/ 100ml	IS:1622:1981: RA:2019	Shall not be o	detectable in any	Absent
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019	Shall not be o	detectable in any	Absent
esti	cides		1	20011		
1	p,p DDT	µg/L	US EPA 508-1995		1	N.D.
2	o.p DDT	μg/L	US EPA 508-1995		1	N.D.
3	p,pDDE	µg/L	US EPA 508-1995		1	N.D.
4	p,p DDD	µg/L	US EPA 508-1995		1	N.D.
5	O,p DDD	µg/L	US EPA 508-1995		1	N.D.
6	Gamma-HCH (Lindane)	μg/L	US EPA 508-1995		2	N.D.
7	Alpha-HCH	µg/L	US EPA 508-1995	(0.01	N.D.



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REPORT NO. -0462

			TEST REPOR	RT .			
SR.		mval.		AS PER IS	10500:2012		
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT	
8	Beta-HCH	µg/L	US EPA 508-1995	0	.04	N.D.	
9	Delta HCH	µg/L	US EPA 508-1995	0	.04	N.D.	
10	Alpha-Endosulfan	µg/L	US EPA 508-1995	(0.4	N.D.	
11	Beta-Endosulfan	µg/L	US EPA 508-1995	(0.4	N.D.	
12	Endosulfansulphat e	µg/L	US EPA 508-1995	(0.4	N.D.	
13	Monocrotophos	µg/L	US EPA 8141A-1994 1		1	N.D.	
14	Ethion	µg/L	US EPA 8141A-1994 3		3	N.D.	
15	Chloropyrifos	µg/L	US EPA 8141A-1994		30		
16	Phorate	µg/L	US EPA 8141A-1994	2		N.D.	
17	Phoratesulphoxide	µg/L	US EPA . 8141A-1994	-		N.D.	
18	Phoratesulphone	µg/L	US EPA 8141A-1994	-		N.D.	
19	2,4-D	µg/L	US EPA 515.1-1995		30	N.D.	
20	Alachlor	µg/L	US EPA 508- 1995		20	N.D.	
21	Atrazine	µg/L	US EPA 532-2000		2	N.D.	
22	Methyl parathion	µg/L	US EPA 8141A-1994	(0.3	N.D.	
23	Methyl paraxone	µg/L	US EPA 8141A-1994	-		N.D.	
24	Malathion	µg/L	US EPA 8141A-1994	190		N.D.	
25	Malaoxon	µg/L	US EPA 8141A-1994	-		N.D.	
26	Aldrin	µg/L	US EPA 508- 1995	0.03		N.D.	
27	Dieldrin	µg/L	US EPA 508-1995	0.03		N.D.	

mg/lit.: milligram per liter, N.D. - Not Detected

Terms & conditions

REMARKS: RESULTS ARE AS ABOVE

> The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only

FOR ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

End of the test report-

PREPARED BY



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2			NAME AND ADDRESS OF TAXABLE PARTY OF TAXABLE PARTY.	
Name & Address Of The Customer	REPORT NO	UES/TR/21-22/0	0461	
10,	LAB REF NO	UES/21-22/W/05	661	
HINDALCO INDUSTRIES LIMITED,	DATE OF SAMPLING	29/05/2021		
GARE PALMA – IV/5, MILUPARA	DATE OF RECEIPT	30/05/2021		
U/G COAL MINE,VILLAGE – MILUPARA,	DATE OF REPORT	03/06/2021		
BLOCK-TAMNAR,	DATE OF ANALYSIS	START: 31/05/2021	END: 03/06/2021	
DISTT RAIGARH (C.G.) 496107	DATE OF ARALISTS	SIAR1.31/03/2021	END. 03/00/2021	

		SAMP.	LE DETAILS	
SAMPLE TYPE	GROUND WATER		ORDER /REFERENCE:	M/PO/SRV/2021/0044, DTD. 21-AUG-2020
CUSTMER SAMPLE ID	STAFF QUARTER-BANJIKHOL PIEZOMETER (AWLR)		SAMPLE CONDITION AT RECEIPT	OK
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY	CHEMIST
SAMPLING PROCEDURE	IS:3025(PART I):1987 RA 2003; APHA 22ND ED. 2012, 1060-B, 1-39		QUANTITY RECEIVED	5 LTR

REPORT NO. 0461

TEST REPORT							
SR.				ACCEPTABLE DRINKING WATER			
NO.	NO. PARAMETER UNIT		METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT	
1	Colour	Hazen	IS:3025:(Part-4)	5	15	<1	
2	Odour	-	IS 3025:(part-5)	Agreeable	Agreeable	Agreeable	
3	Taste	-	IS 3025:(part-8)	Agreeable	Agreeable	Agreeable	
4	рН	-	APHA 22 nd Ed.2012,4500-H ⁺ -B, 4-92	6.5-8.5	NoRelaxati on	6.67	
5	Turbidity	NTU	APHA 22 nd Ed.2012,2130-B,2-13	1	5	14.2	
6	Electrical Conductivity	µS/cm	IS 3025(part-14):1984, RA 2013	-	-	194.0	
7	Residual Chlorine	mg/Lit	APHA 22 nd Ed.2012,4500-CI-G, 4 - 69	0.2	1	N.D.	
8	Total Solid	mg/Lit	APHA 22 nd Ed.2012,2540- B, 2- 64	-	-	126.0	
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	118.0	
10	Total Suspended Solids	mg/Lit	APHA 22 nd Ed.2012,2540- D, 2- 66	-	2	8.0	
11	Alkalinity Total (as CaCO₃)	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	30.0	
12	Total Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,2340-C, 2-44,45	200	600	74.0	
13	Calcium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500–Ca-B, 3-67	-	-	48.0	
14	Magnesium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500–Mg-B, 3-84	2	-	26.0	
15	Calcium (as Ca)	mg/Lit	APHA 22 nd Ed.2012,3500–Ca-B, 3-67	75	200	19.2	
16	Magnesium (as Mg)	mg/Lit	APHA 22 nd Ed.2012,3500–Mg-B, 3-84	30	100	6.3	
17	Chloride (as Cl)	mg/Lit	APHA 22 nd Ed.2012,4500-Cl-B, 4-72	250	1000	25.9	
18	Sulphate (as SO ₄)	mg/Lit	APHA 22 nd Ed.2012,4500-SO ₄ - E,4-190	200	400	20.1	
19	Nitrate (as NO ₃)	mg/Lit	APHA 22 nd Ed.2012,4500-NO ₃ - B,4-122	45	NoRelaxati on	0.84	
20	Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P-C, 4-153	-	-	N.D.	
'21	Sodium (as Na)	mg/Lit	APHA 22ndEd.2012,3500-Na-B, 3-97	-	-	6.4	



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REPORT NO. 0461

TEST REPORT								
SR. NO.	PARAMETER		METHOD OF TEST	ACCEPTABL DRINKING WATER Acceptable Limit	E LIMIT FOR R (IS 10500:2012) Permissible limit	RESULT		
22	Potassium (as K)	mg/Lit	APHA 22 nd Ed.2012,3500-K-B, 3-	-	-	1.3		
23	Boron (as B)	mg/Lit	87 APHA 22 nd Ed.2012,4500-B-B, 4-	0.5	1.0	N.D.		
	1 1	1 20	25		NoRelaxati			
24	Iron (as Fe)	mg/Lit	APHA 22 nd Ed.2012,3111-B,3-18	0.3	on	N.D.		
25	Fluoride (as F)	mg/Lit	APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.11		
26	Manganese (as Mn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.1	0.3	N.D.		
27	Lead (as Pb)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.01	NoRelaxati on	N.D.		
28	Nickel (as Ni)	mg/Lit	APHA 22 nd Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.		
29	Zinc (as Zn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	5	15	N.D.		
30	Copper (as Cu)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.05	1.5	N.D.		
31	Cadmium (as Cd)	mg/Lit	APHA 22 nd Ed.2012,3500-Cd, 3- 105	0.003	NoRelaxati on	N.D.		
32	Mercury (as Hg)	mg/Lit	APHA 22 nd Ed.2012,3112-B, 3-23	0.001	NoRelaxati on	N.D.		
33	Arsenic (as As)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	0.05	N.D.		
34	Selenium (as Se)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	NoRelaxati on	N.D.		
35	Chromium (as Cr)	mg/Lit	APHA 22 nd Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxati on	N.D.		
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 nd Ed.2012,5540-C, 5-53	0.2	1.0	N.D.		
37	Phenolic Compound (as C ₆ H ₅ OH)	mg/Lit	APHA 22 nd Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.		
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 nd Ed.2012,6440-6-93	0.0001	NoRelaxati on	N.D.		
39	Mineral Oil	mg/Lit	IS 3025 (part-39): 1991, RA 2003	0.5	No Relaxation	N.D.		
40	Oil & Grease	mg/Lit	IS 3025 (Part 39):1991, RA 2003	-	-	N.D.		
licrob	piological Analysis							
1	Total Coliforms	MPN/ 100 ML	IS:1622:1981: RA:2019	Shall not be any 100 r	detectable in nl sample	Absent		
2	Faecal coliform	MPN/ 100ml	IS:1622:1981: RA:2019	Shall not be any 100 r	detectable in	Absent		
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019	Shall not be any 100n	detectable in	Absent		
Pestic	ides							
1	p,p DDT	µg/L	US EPA 508-1995	1	Į.	N.D.		
2	o.p DDT	μg/L	US EPA 508-1995	1	L	N.D.		
3	p,pDDE	μg/L	US EPA 508-1995			N.D.		
4	p,p DDD	μg/L	US EPA 508-1995	1		N.D.		
5	O,p DDD	μg/L	US EPA 508-1995	1	L	N.D.		
6	Gamma-HCH (Lindane)	μg/L	US EPA 508-1995	2	2	N.D.		
7	Alpha-HCH	μg/L	US EPA 508-1995	0.0	01	N.D.		
8	Beta-HCH	μg/L	US EPA 508-1995	0.0	04	N.D.		
9	Delta HCH	μg/L	US EPA 508-1995	0.0	04	N.D.		
10	Alpha-Endosulfan	µg/L	US EPA 508-1995	0.	4	N.D.		



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REPORT NO. 0461

SR.	No. 7				ACCEPTABLE LIMIT FOR DRINKING WATER (IS 10500:2012)		
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT	
11	Beta-Endosulfan	μg/L	US EPA 508-1995	0.	4	N.D.	
12	Endosulfansulphate	μg/L	US EPA 508-1995	0.	4	N.D.	
13	Monocrotophos	μg/L	US EPA 8141A-1994	1		N.D.	
14	Ethion	μg/L	US EPA 8141A-1994	3		N.D.	
15	Chloropyrifos	μg/L	US EPA 8141A-1994 30		N.D.		
16	Phorate	µg/L	US EPA 8141A-1994 2		N.D.		
17	Phoratesulphoxide	μg/L	US EPA 8141A-1994 -		N.D.		
18	Phoratesulphone	μg/L	US EPA 8141A-1994 -		N.D.		
19	2,4-D	μg/L	US EPA 515.1-1995 30		N.D.		
20	Alachior	μg/L	US EPA 508- 1995	20)	N.D.	
21	Atrazine	µg/L	US EPA 532-2000	2		N.D.	
22	Methyl parathion	μg/L	US EPA 8141A-1994	0.	3	N.D.	
23	Methyl paraxone	μg/L	US EPA 8141A-1994	-		N.D.	
24	Malathion	µg/L	US EPA 8141A-1994 190		0	N.D.	
25	Malaoxon	μg/L	US EPA 8141A-1994 -		N.D.		
26	Aldrin	μg/L	US EPA 508- 1995 0.03		N.D.		
27	Dieldrin	µg/L	US EPA 508-1995	0.0			

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

PREPARED BY

- > The report for publication, arbitration or as legal dispute is forbidden.
- Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.

FOR ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report-



Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

Name & Address Of The Customer
TO,
HINDALCO INDUSTRIES LIMITED,
GARE PALMA – IV/5, MILUPARA
U/G COAL MINE,VILLAGE – MILUPARA,
BLOCK-TAMNAR,
DISTT. - RAIGARH (C.G.) 496107

REPORT NO UES/TR/21-22/0463

LAB REF NO UES/21-22/W/0563

DATE OF SAMPLING 29/05/2021

DATE OF RECEIPT 30/05/2021

DATE OF REPORT 03/06/2021

DATE OF ANALYSIS START:31/05/2021 END:03/06/2021

		SAMPL	E DETAILS		
SAMPLE TYPE	GROUND WATER		ORDER /REFERENCE:	M/PO/SRV/2021/0044, DTD. 21-AUG-2020	
CUSTMER SAMPLE ID	MILUPARA VILLAGE NEAR PA	HC-	SAMPLE CONDITION AT RECEIPT	OR	
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY	CHEMIST	
SAMPLING PROCEDURE	IS:3025(PART I):1987 RA APHA 22ND ED. 2012,1060		QUANTITY RECEIVED	5 LTR	

REPORT NO. - 0463

SR.				AS PER IS			
NO. PARAMETER		UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT	
1	Colour	Hazen	IS:3025:(Part-4)	5	15	<1	
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeable	
3	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeable	
4	рН	-	APHA 22 nd Ed.2012,4500-H ⁺ -B, 4-92	6.5-8.5	NoRelaxatio n	6.78	
5	Turbidity	NTU	APHA 22 nd Ed.2012,2130-B,2-13	1	5	64.0	
6	Electrical Conductivity	µS/cm	IS 3025(part-14):1984, RA 2013	-	-	274.0	
7	Residual Chlorine	mg/Lit	APHA 22 nd Ed.2012,4500-CI-G, 4 – 69	0.2	1	N.D.	
8	Total Solid	mg/Lit	APHA 22 nd Ed.2012,2540- B, 2- 64	-	-	188.2	
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	168.0	
10	Total Suspended Solids	mg/Lit	APHA 22 nd Ed.2012,2540- D, 2- 66	-	-	20.2	
11	Alkalinity Total (as CaCO₃)	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	32.0	
12	Total Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,2340-C, 2-44,45	200	600	80.0	
13	Calcium Hardness (as CaCO3)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca- B,3-67	-	-	44.0	
14	Magnesium Hardness (as CaCO3)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg- B,3-84	-	-	36.0	
15	Calcium (as Ca)	mg/Lit	APHA 22 nd Ed.2012,3500–Ca- B,3-67	75	200	17.6	
16	Magnesium (as Mg)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	30	100	8.74	
17	Chloride (as CI)	mg/Lit	APHA 22 nd Ed.2012,4500-CI-B, 4-72	250	1000	12.9	
18	Sulphate (as SO ₄)	mg/Lit	APHA 22 nd Ed.2012,4500-SO ₄ - E, 4-190	200	400	21.6	
19	Nitrate (as NO ₃)	mg/Lit	APHA 22 nd Ed.2012,4500-NO ₃ - B,4-122	45	NoRelaxatio n	3.2	
20	Phosphate (as P)	mg/Lit	APHA 22ndEd.2012,4500-P-C, 4-153	-	-	N.D.	
21	Sodium (as Na)	mg/Lit	APHA 22nd Ed.2012,3500-Na- B, 3-97	-	-	4.9	
22	Potassium (as K)	mg/Lit	APHA 22 nd Ed.2012,3500-K-B, 3-87	-	-	1.2	



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REPORT NO. - 0463

			TEST REPORT		10500:2012	
SR. NO.	PARAMETER UNIT		METHOD OF TEST	Acceptable Limit	Permissible limit	RESUL
23	Boron (as B)	mg/Lit	APHA 22 nd Ed.2012,4500-B-B, 4-25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 nd Ed.2012,3111-B,3- 18	0.3	NoRelaxatio n	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.08
26	Manganese (as Mn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3- 18	0.1	0.3	0.20
27	Lead (as Pb)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3- 18	0.01	NoRelaxatio n	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 nd Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-	5	15	N.D.
30	Copper (as Cu)	mg/Lit	18 APHA_22 nd Ed.2012,3111-B, 3-	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	18 APHA 22 nd Ed.2012,3500-Cd, 3-	0.003	NoRelaxatio	N.D.
32	Mercury (as Hg)	mg/Lit	105 APHA 22 nd Ed.2012,3112-B, 3-	0.001	n NoRelaxatio	N.D.
33	Arsenic (as As)	mg/Lit	23 APHA 22 nd Ed.2012,3114-C, 3-	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	38 APHA 22 nd Ed.2012,3114-C, 3-	0.01	NoRelaxatio	N.D.
35	Chromium (as Cr)	mg/Lit	38 APHA 22 nd Ed.2012,3500-Cr-B,	0.01	n NoRelaxatio	
-	Anionic Detergent		3-69 APHA 22 nd Ed.2012,5540-C, 5-		n	N.D.
36	(as MBAS)	mg/Lit	53	0.2	1.0	N.D.
37	Phenolic Compound (as C ₆ H ₅ OH)	mg/Lit	APHA 22 nd Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 nd Ed.2012,6440-6-93	0.0001	NoRelaxatio n	N.D.
39	Mineral Oil	mg/Lit	IS 3025 (part-39): 1991, RA 2003	0.5	No Relaxation	N.D.
40	Oil & Grease	mg/Lit	IS 3025 (Part 39):1991, RA 2003		-	N.D.
Micro	biological Analysis		2000			
1	Total Coliforms	MPN/ 100 ML	IS:1622:1981: RA:2019		etectable in any sample	Absent
2	Faecal coliform	MPN/ 100ml	IS:1622:1981: RA:2019		etectable in any sample	Absent
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019	Shall not be de	etectable in any sample	Absent
Pesti	cides	ALLEGE HE STANDARD		200111		
1	p,p DDT	µg/L	US EPA 508-1995		1	N.D.
2	o.p DDT	µg/L	US EPA 508-1995		1	N.D.
3	p,pDDE	µg/L	US EPA 508-1995	7.01.22.31	1	N.D.
4	p,p DDD	µg/L	US EPA 508-1995	1		N.D.
5	O,p DDD	µg/L	US EPA 508-1995		1	N.D.
6	Gamma-HCH (Lindane)	µg/L	US EPA 508-1995		2	N.D.
7	Alpha-HCH	µg/L	US EPA 508-1995	0.	01	N.D.
8	Beta-HCH	µg/L	US EPA 508-1995		04	N.D.
9	Delta HCH	µg/L	US EPA 508-1995		04	N.D.

N.D.



HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph: 0771 - 4027777 | Email: ultimatenviro@gmail.com

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TEST REPORT

REPORT NO. - 0463

PARAMETER

Alpha-Endosulfan

Beta-Endosulfan

Monocrotophos

Chloropyrifos

Phoratesulphoxide

Phoratesulphone

Methyl parathion

Methyl paraxone

Ethion

Phorate

2,4-D

Alachlor

Atrazine

Malathion

Malaoxon

Aldrin

Endosulfansulphate

UNIT

µg/L

SR.

NO.

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

	AS PER IS	AS PER IS 10500:2012				
METHOD OF TEST	METHOD OF TEST Acceptable Permissible Limit limit					
US EPA 508-1995	0	.4	N.D.			
US EPA 508-1995	0	.4	N.D.			
US EPA 508-1995	0	.4	N.D.			
US EPA 8141A-1994		1	N.D.			
US EPA 8141A-1994	3		N.D.			
US EPA 8141A-1994	3	0	N.D.			
US EPA 8141A-1994		2	N.D.			

30

20

2

0.3

-

190

0.03

0.03

Dieldrin µg/L US EPA 508-1995

Note: mg/lit.: milligram per liter, N.D. - Not Detected.

Terms & conditions

REMARKS: RESULTS ARE AS ABOVE

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

US EPA 8141A-1994

US EPA 8141A-1994

US EPA 515.1-1995

US EPA 8141A-1994

US EPA 8141A-1994

US EPA 8141A-1994

US EPA 8141A-1994

US EPA 508- 1995

US EPA 508- 1995

US EPA 532-2000

This is for information as the party has asked for above isst(s) only.

FOR ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report-



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Name & Address Of The Customer
TO,
HINDALCO INDUSTRIES LIMITED,
GARE PALMA – IV/4, COAL MINE, VILLAGE –
BANKHETA, POST - MILUPARA,
DISTT. - RAIGARH (C.G.) 496107.

REPORT NO	UES/TR/21-22/0427				
LAB REF NO	UES/21-22/W/0527				
DATE OF SAMPLING	29/05/2021				
DATE OF RECEIPT	30/05/2021				
DATE OF REPORT	03/06/2021				
DATE OF ANALYSIS	START: 31/05/2021	END: 03/06/2021			

SAMPLE DETAILS

SAMPLE TYPE	MPLE TYPE GROUND WATER		ORDER /REFERENCE:	N/PO/SRV/2021/0035, DTD. 21-AUG-2020
CUSTMER SAMPLE ID	SAKTA VILLAGE, (DUGWE	(LL)	SAMPLE CONDITION AT RECEIPT	OR
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY	CHEMIST
SAMPLING PROCEDURE	IS:3025(PART I):1987 2003; APHA 22ND ED. 1060-B, 1-39		QUANTITY RECEIVED	5 LTR

Report No.0427

7	TEST REPORT								
SR.				AS PER IS	10500:2012				
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT			
1	Colour	Hazen	IS:3025:(Part-4)	5	15	2.3			
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeable			
3	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeable			
4	pH		APHA 22 nd Ed.2012,4500-H ⁺ -B, 4-92	6.5-8.5	NoRelaxatio n	7.31			
5	Turbidity	NTU	APHA 22 nd Ed.2012,2130-B,2-13	1	5	3.0			
6	Electrical Conductivity	µS/cm	IS 3025(part-14):1984, RA 2013	-	-	239.0			
7	Residual Chlorine	mg/Lit	APHA 22 nd Ed.2012,4500-CI-G, 4 - 69	0.2	1	N.D.			
8	Total Solid	mg/Lit	APHA 22 nd Ed.2012,2540- B, 2- 64	-	-	148.1			
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	144.0			
10	Total Suspended Solids	mg/Lit	APHA 22 nd Ed.2012,2540- D, 2- 66	-	-	4.1			
11	Alkalinity Total (as CaCO ₃)	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	70.0			
12	Total Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,2340-C, 2-44,45	200	600	98.0			
13	Calcium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca-B, 3-67	-	-	42.0			
14	Magnesium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	-	-	56.0			
15	Calcium (as Ca)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca-B, 3-67	75	200	16.8			
16	Magnesium (as Mg)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	30	100	13.6			
17	Chloride (as CI)	mg/Lit	APHA 22 nd Ed.2012,4500-CI-B, 4-72	250	1000	22.9			
18	Sulphate (as SO ₄)	mg/Lit	APHA 22 nd Ed.2012,4500-SO ₄ -E, 4-190	200	400	19.6			
19	Nitrate (as NO ₃)	mg/Lit	APHA 22 nd Ed.2012,4500-NO ₃ -B, 4-122	45	NoRelaxatio n	0.30			
20	Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P- C,4-153	-	-	N.D.			
21	Sodium (as Na)	mg/Lit	APHA 22nd Ed.2012,3500-Na- B,3-97	-	-	11.4			
22	Potassium (as K)	mg/Lit	APHA 22 nd Ed.2012,3500-K-B, 3-87	-	-	0.81			



Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

Report No.0427

			TEST REPORT			
SR.				AS PER IS	10500:2012	
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
23	Boron (as B)	mg/Lit	APHA 22 nd Ed.2012,4500-B-B, 4-25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 nd Ed.2012,3111-B,3-18	0.3	NoRelaxatio n	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.14
26	Manganese (as Mn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3- 18	0.1	0.3	0.09
27	Lead (as Pb)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-	0.01	NoRelaxatio	N.D.
28	Nickel (as Ni)	mg/Lit	18 APHA 22 nd Ed.2012,3500-Ni, 3-		n No	
			108 APHA 22 nd Ed.2012,3111-B, 3-	0.02	Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3- 18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 nd Ed.2012,3500-Cd, 3- 105	0.003	NoRelaxatio n	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 nd Ed.2012,3112-B, 3- 23	0.001	NoRelaxatio n	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	NoRelaxatio	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22 nd Ed.2012,3500-Cr-B,	0.05	n NoRelaxatio	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	3-69 APHA 22 nd Ed.2012,5540-C, 5- 53	0.2	1.0	N.D.
37	Phenolic Compound (as C ₆ H ₅ OH)	mg/Lit	APHA 22 nd Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 nd Ed.2012,6440-6-93	0.0001	NoRelaxatio n	N.D.
39	Mineral Oil	mg/Lit	IS 3025 (part-39) : 1991, RA 2003	0.5	No	N.D.
40	Oil & Grease	mg/Lit	IS 3025 (Part 39):1991, RA	_	Relaxation	N.D.
	biological Analysis	3,	2003			14.0.
1	Total Coliforms	MPN/ 100 ML	IS:1622:1981: RA:2019		etectable in any sample	Absent
2	Faecal coliform	MPN/ 100ml	IS:1622:1981: RA:2019		etectable in any	Absent
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019	Shall not be de	sample etectable in any	Absent
	cides	1001111		100ml	sample	
1	p,p DDT	µg/L	US EPA 508-1995		1	N.D.
2	o.p DDT	µg/L	US EPA 508-1995		1	N.D.
3	p,pDDE	µg/L	US EPA 508-1995		1	N.D.
4	p,p DDD	µg/L	US EPA 508-1995		1	N.D.
5	O,p DDD	µg/L	US EPA 508-1995		1	N.D.
6	Gamma-HCH (Lindane)	µg/L	US EPA 508-1995		2	N.D.
7	Alpha-HCH	µg/L	US EPA 508-1995	0.		N.D.
8	Beta-HCH	µg/L	US EPA 508-1995		04	N.D.
9	Delta HCH	µg/L	US EPA 508-1995	0.		N.D.



Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

Report No.0427

SR.	PARAMETER		The second secon	AS PER IS	AS PER IS 10500:2012		
NO.		UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT	
10	Alpha-Endosulfan	µg/L	US EPA 508-1995	0.	4	N.D.	
11	Beta-Endosulfan	µg/L	US EPA 508-1995	0.	4	N.D.	
12	Endosulfansulphate	µg/L	US EPA 508-1995	0.	4	N.D.	
13	Monocrotophos	µg/L	US EPA 8141A-1994	1		N.D.	
14	Ethion	μg/L	US EPA 8141A-1994	3	3	N.D.	
15	Chloropyrifos	µg/L	US EPA 8141A-1994	30		N.D.	
16	Phorate	µg/L	US EPA 8141A-1994	2		N.D.	
17	Phoratesulphoxide	µg/L	US EPA 8141A-1994	-		N.D.	
18	Phoratesulphone	µg/L	US EPA 8141A-1994			N.D.	
19	2,4-D	µg/L	US EPA 515.1-1995	3	0	N.D.	
20	Alachlor	µg/L	US EPA 508- 1995	2	0	N.D.	
21	Atrazine	µg/L	US EPA 532-2000	2	!	N.D.	
22	Methyl parathion	µg/L	US EPA 8141A-1994	0.	3	N.D.	
23	Methyl paraxone	µg/L	US EPA 8141A-1994	-		N.D.	
24	Malathion	µg/L	US EPA 8141A-1994	19	00	N.D.	
25	Malaoxon	µg/L	US EPA 8141A-1994	-		N.D.	
26	Aldrin	µg/L	US EPA 508- 1995	0.0	03	N.D.	
27	Dieldrin	µg/L	US EPA 508-1995	0.0	03	N.D.	

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- > The report for publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for about

FORULTIMATE ENVIRORYTICAL SOLUTIONS



Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

Name & Address Of The Customer
TO,
HINDALCO INDUSTRIES LIMITED,
GARE PALMA – IV/5, MILUPARA
U/G COAL MINE, VILLAGE – MILUPARA,
BLOCK-TAMNAR,
DISTT. - RAIGARH (C.G.) 496107

REPORT NO	UES/TR/21-22/0	0464
LAB REF NO	UES/21-22/W/05	564
DATE OF SAMPLING	29/05/2021	
DATE OF RECEIPT	30/05/2021	
DATE OF REPORT	03/06/2021	
DATE OF ANALYSIS	START: 31/05/2021	END: 03/06/2021

		SAMPL	E DETAILS	
SAMPLE TYPE	GROUND WATER		ORDER /REFERENCE:	M/PO/SRV/2021/0044, DTD. 21-AUG-2020
CUSTMER SAMPLE ID	SIDARPARA VILLAGE (DUGWI	ELL)	SAMPLE CONDITION AT RECEIPT	OK
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY	CHEMIST
SAMPLING PROCEDURE	IS:3025(PART I):1987 RA APHA 22ND ED. 2012,1060		QUANTITY RECEIVED	5 LTR

TEST DEDART

REPORT NO. - 0464

SR.				AS PER IS	1	
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
1	Colour	Hazen	IS:3025:(Part-4)	5	15	<1
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeable
3	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeable
4	рН	-	APHA 22 nd Ed.2012,4500-H ⁺ -B, 4-92	6.5-8.5	NoRelaxati on	7.56
5	Turbidity	NTU	APHA 22 nd Ed.2012,2130-B,2-13	1	5	0.29
6	Electrical Conductivity	µS/cm	IS 3025(part-14):1984, RA 2013	-	-	296.0
7	Residual Chlorine	mg/Lit	APHA 22 nd Ed.2012,4500-Cl-G, 4 - 69	0.2	1	N.D.
8	Total Solid	mg/Lit	APHA 22 nd Ed.2012,2540- B, 2- 64	-	-	186.1
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	184.0
10	Total Suspended Solids	mg/Lit	APHA 22 nd Ed.2012,2540- D, 2- 66	-	-	2.1
11	Alkalinity Total (as CaCO ₃)	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	52.0
12	Total Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,2340-C, 2-44,45	200	600	80.0
13	Calcium Hardness (as CaCO3)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca- B,3-67	-	-	54.0
14	Magnesium Hardness (as CaCO3)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg- B,3-84	-	-	26.0
15	Calcium (as Ca)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca- B,3-67	75	200	21.6
16	Magnesium (as Mg)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	30	100	6.31
17	Chloride (as CI)	mg/Lit	APHA 22 nd Ed.2012,4500-CI-B, 4-72	250	1000	12.9
18	Sulphate (as SO ₄)	mg/Lit	APHA 22 nd Ed.2012,4500-SO ₄ -E, 4-190	200	400	13.8
19	Nitrate (as NO ₃)	mg/Lit	APHA 22 nd Ed.2012,4500-NO ₃ - B,4-122	45	NoRelaxati on	3.3
20	Phosphate (as P)	mg/Lit	APHA 22ndEd.2012,4500-P-C, 4-153	-	-	N.D.
21	Sodium (as Na)	mg/Lit	APHA 22nd Ed.2012,3500-Na-B, 3-97	-	-	8.4
22	Potassium (as K)	mg/Lit	APHA 22 nd Ed.2012,3500-K-B, 3-	-	-	0.2



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S REPORT NO. - 0464

			TEST REPORT	-		
SR.				AS PER IS		
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
			87			
23	Boron (as B)	mg/Lit	APHA 22 nd Ed.2012,4500-B-B, 4- 25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 nd Ed.2012,3111-B,3-18	0.3	NoRelaxati on	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.14
26	Manganese (as Mn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.1	0.3	0.10
27	Lead (as Pb)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.01	NoRelaxati	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 nd Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHÁ 22 nd Ed.2012,3111-B, 3-18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 nd Ed.2012,3500-Cd, 3- 105	0.003	NoRelaxati on	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 nd Ed.2012,3112-B, 3-23	0.001	NoRelaxati on	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	NoRelaxati on	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22 nd Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxati on	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 nd Ed.2012,5540-C, 5-53	0.2	1.0	N.D.
37	Phenolic Compound (as C ₆ H ₅ OH)	mg/Lit	APHA 22 nd Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 nd Ed.2012,6440-6-93	0.0001	NoRelaxati on	N.D.
39	Mineral Oil	mg/Lit	IS 3025 (part-39) : 1991, RA 2003	0.5	No	N.D.
40	Oil & Grease	mg/Lit	IS 3025 (Part 39):1991, RA 2003		Relaxation -	N.D.
Micro	biological Analysis		2003			
1	Total Coliforms	MPN/ 100 ML	IS:1622:1981: RA:2019	Shall not be any 100 r	detectable in nl sample	Absent
2	Faecal coliform	MPN/ 100ml	IS:1622:1981: RA:2019	Shall not be any 100 r		Absent
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019	Shall not be	detectable in	Absent
Pesti	cides		Heath and the second	2/ 20011		
1	p,p DDT	μg/L	US EPA 508-1995	1		N.D.
2	o.p DDT	μg/L	US EPA 508-1995	1		N.D.
3	p,pDDE	µg/L	US EPA 508-1995	1		N.D.
4	p,p DDD	µg/L	US EPA 508-1995	1		N.D.
5	O,p DDD	μg/L	US EPA 508-1995	1		N.D.
6	Gamma-HCH (Lindane)	µg/L	US EPA 508-1995	2	2	N.D.
7	Alpha-HCH	μg/L	US EPA 508-1995	0.0	01	N.D.
8	Beta-HCH	µg/L	US EPA 508-1995	0.0	04	N.D.
9	Delta HCH	µg/L	US EPA 508-1995	0.0	04	N.D.



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- 0464 REPORT NO.

			TEST REPORT	•		
SR.	LEADING THE PERSON	N LEGET		AS PER IS 1	0500:2012	
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Permissible Limit limit		RESULT
10	Alpha-Endosulfan	μg/L	US EPA 508-1995	0.4		N.D.
11	Beta-Endosulfan	µg/L	US EPA 508-1995	0.	4	N.D.
12	Endosulfansulphate	µg/L	US EPA 508-1995	0.	4	N.D.
13	Monocrotophos	µg/L	US EPA 8141A-1994	1		N.D.
14	Ethion	µg/L	US EPA 8141A-1994	3		N.D.
15	Chloropyrifos	µg/L	US EPA 8141A-1994	30	0	N.D.
16	Phorate	µg/L	US EPA 8141A-1994	2		N.D.
17	Phoratesulphoxide	µg/L	US EPA 8141A-1994	-		N.D.
18	Phoratesulphone	µg/L	US EPA 8141A-1994	-		N.D.
19	2,4-D	µg/L	US EPA 515.1-1995	30	0	N.D.
20	Alachlor	µg/L	US EPA 508- 1995	2	0	N.D.
21	Atrazine	µg/L	US EPA 532-2000	2		N.D.
22	Methyl parathion	µg/L	US EPA 8141A-1994	0.	3	N.D.
23	Methyl paraxone	µg/L	US EPA 8141A-1994	-		N.D.
24	Malathion	µg/L	US EPA 8141A-1994	19	0	N.D.
25	Malaoxon	µg/L	US EPA 8141A-1994	-		N.D.
26	Aldrin	µg/L	US EPA 508- 1995	0.0)3	N.D.
27	Dieldrin	µg/L	US EPA 508-1995	0.0)3	N.D.

mg/lit.: milligram per liter, N.D. -

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

The report for publication, arbitration of as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

06/2021



Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

Name & Address Of The Customer
TO,
HINDALCO INDUSTRIES LIMITED,
GARE PALMA – IV/4, COAL MINE,VILLAGE –
BANKHETA, POST -MILUPARA,
DISTT. - RAIGARH (C.G.) 496107.

REPORT NO	UES/TR/21-22/0	0428
LAB REF NO	UES/21-22/W/05	528
DATE OF SAMPLING	29/05/2021	
DATE OF RECEIPT	30/05/2021	
DATE OF REPORT	03/06/2021	
DATE OF ANALYSIS	START: 31/05/2021	END: 03/06/2021

SAMPLE DETAILS

SAMPLE TYPE GROUND WATER		ORDER /REFERENCE:	N/PO/SRV/2021/0035, DTD. 21-AUG-2020		
CUSTMER SAMPLE ID	BELJOR VILLAGE (DUGWE	ELL)	SAMPLE CONDITION AT RECEIPT	OK	
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY	CHEMIST	
SAMPLING PROCEDURE	IS:3025(PART I):1987 2003; APHA 22ND ED. 1060-B, 1-39		QUANTITY RECEIVED	5 LTR	¥

Report No.0428

,	TEST REPORT								
SR.		1493	A CONTRACTOR OF SERVICE	AS PER IS	10500:2012				
NO.	PARAMETER	PARAMETER UNIT	METHOD OF TEST	Acceptable Permissible Limit limit		RESULT			
1	Colour	Hazen	IS:3025:(Part-4)	5	15	<1			
2	Odour		IS 3025(part-5)	Agreeable	Agreeable	Agreeable			
3	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeable			
4	рН	-	APHA 22 nd Ed.2012,4500-H ⁺ -B, 4-92	6.5-8.5	NoRelaxatio n	7.31			
5	Turbidity	NTU	APHA 22 nd Ed.2012,2130-B,2-13	1	5	0.62			
6	Electrical Conductivity	μS/cm	IS 3025(part-14):1984, RA 2013	i — i	-	588.0			
7	Residual Chlorine	mg/Lit	APHA 22 nd Ed.2012,4500-Cl-G, 4 - 69	0.2	1	N.D.			
8	Total Solid	mg/Lit	APHA 22 nd Ed.2012,2540- B, 2- 64	-	-	365.3			
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	360.0			
10	Total Suspended Solids	mg/Lit	APHA 22 nd Ed.2012,2540- D, 2- 66	*	-	5.3			
11	Alkalinity Total (as CaCO ₃)	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	160.0			
12	Total Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,2340-C, 2-44,45	200	600	194.0			
13	Calcium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500–Ca-B, 3-67	-	-	114.0			
14	Magnesium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500–Mg-B, 3-84	-	-	80.0			
15	Calcium (as Ca)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca-B, 3-67	75	200	45.6			
16	Magnesium (as Mg)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	30	100	19.4			
17	Chloride (as CI)	mg/Lit	APHA 22 nd Ed.2012,4500-CI-B, 4-72	250	1000	62.9			
18	Sulphate (as SO ₄)	mg/Lit	APHA 22 nd Ed.2012,4500-SO ₄ -E, 4-190	200	400	21.3			
19	Nitrate (as NO ₃)	mg/Lit	APHA 22 nd Ed.2012,4500-NO ₃ -B, 4-122	45	NoRelaxatio n	0.64			
20	Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P- C,4-153	-	-	N.D.			

Format No.: UES/FORM/09



HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph: 0771 - 4027777 | Email: ultimatenviro@gmail.com

Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

Report No.0428

			TEST REPORT			
SR.				AS PER IS	10500:2012	
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
21	Sodium (as Na)	mg/Lit	APHA 22nd Ed.2012,3500-Na- B,3-97	-	-	4.2
22	Potassium (as K)	mg/Lit	APHA 22 nd Ed.2012,3500-K-B, 3-87	-	-	1.10
23	Boron (as B)	mg/Lit	APHA 22 nd Ed.2012,4500-B-B, 4-25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 nd Ed.2012,3111-B,3-18	0.3	NoRelaxatio n	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.13
26	Manganese (as Mn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3- 18	0.1	0.3	0.15
27	Lead (as Pb)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-	0.01	NoRelaxatio	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 nd Ed.2012,3500-Ni, 3- 108	0,02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3- 18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3- 18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 nd Ed.2012,3500-Cd, 3- 105	0.003	NoRelaxatio n	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 nd Ed.2012,3112-B, 3- 23	0.001	NoRelaxatio n	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3- 38	0.01	NoRelaxatio	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22 nd Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxatio n	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 nd Ed.2012,5540-C, 5-53	0.2	1.0	N.D.
37	Phenolic Compound (as C ₆ H ₅ OH)	mg/Lit	APHA 22 nd Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 nd Ed.2012,6440-6-93	0.0001	NoRelaxatio n	N.D.
39	Mineral Oil	mg/Lit	IS 3025 (part-39) : 1991, RA 2003	0.5	No Relaxation	N.D.
40	Oil & Grease	mg/Lit	IS 3025 (Part 39):1991, RA 2003	-	-	N.D.
licro	biological Analysis		2003		1	
1	Total Coliforms	MPN/ 100 ML	IS:1622:1981: RA:2019		detectable in ml sample	Absent
2	Faecal Coliform	MPN/ 100ml	IS:1622:1981: RA:2019	Shall not be	detectable in ml sample	Absent
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019	Shall not be	detectable in ml sample	Absent
esti	cides			un, 100	Janipie	
1	p,p DDT	μg/L	US EPA 508-1995		1	N.D.
2	o.p DDT	µg/L	US EPA 508-1995		1	N.D.
3	p,pDDE	µg/L	US EPA 508-1995		1	N.D.
4	p,p DDD	µg/L	US EPA 508-1995		1	N.D.
5	O,p DDD	µg/L	US EPA 508-1995		1	N.D.
6	Gamma-HCH (Lindane)	μg/L	US EPA 508-1995		2	N.D.



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Report No.0428

SR.	PARAMETER UNIT METHOD OF TEST		AS PER IS	10500:2012		
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
7	Alpha-HCH	µg/L	US EPA 508-1995	0.	01	N.D.
8	Beta-HCH	µg/L	US EPA 508-1995	0.	04	N.D.
9	Delta HCH	µg/L	US EPA 508-1995	0.	04	N.D.
10	Alpha-Endosulfan	µg/L	US EPA 508-1995	0	.4	N.D.
11	Beta-Endosulfan	µg/L	US EPA 508-1995	0	.4	N.D.
12	Endosulfansulphate	µg/L	US EPA 508-1995	0	.4	N.D.
13	Monocrotophos	µg/L	US EPA 8141A-1994		1	N.D.
14	Ethion	µg/L	US EPA 8141A-1994		3	N.D.
15	Chloropyrifos	µg/L	US EPA 8141A-1994	3	0	N.D.
716	Phorate	µg/L	US EPA 8141A-1994		2	N.D.
17	Phoratesulphoxide	μg/L	US EPA 8141A-1994			N.D.
18	Phoratesulphone	µg/L	US EPA 8141A-1994			N.D.
19	2,4-D	µg/L	US EPA 515.1-1995	3	0	N.D.
20	Alachlor	µg/L	US EPA 508- 1995	2	0	N.D.
21	Atrazine	µg/L	US EPA 532-2000		2	N.D.
22	Methyl parathion	µg/L	US EPA 8141A-1994	0.	.3	N.D.
23	Methyl paraxone	µg/L	US EPA 8141A-1994			N.D.
24	Malathion	µg/L	US EPA 8141A-1994	19	90	N.D.
25	Malaoxon	µg/L	US EPA 8141A-1994			N.D.
26	Aldrin	µg/L	US EPA 508- 1995	0.0	03	N.D.
27	Dieldrin	µg/L	US EPA 508-1995	0.0	03	N.D.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- > Thereportfor publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked

03/06/2021

For ULTIMATE ENVIROLYTICAL SOLUTIONS

03/06/2021 **AUTHORIZED SIGNATORY**

-End of the test report---

AN ISO: 9001:2015 / ISO: 14001:2015 / ISO 45001:2018 CERTIFIED LABORATORY



Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

Name & Address Of 1	The Customer	REPORT NO	UES/TR/21-22/2126		
TO,		LAB REF NO	UES/21-22/W/3470		
HINDALCO INDUSTR	THE STANDARD THE TREET OF THE STANDARD THE S	DATE OF SAMPLING	27/08/2021		
GARE PALMA – IV/4, VILLAGE – BANKHET	3. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	DATE OF RECEIPT	29/08/2021		
POST -MILUPARA.	n ,	DATE OF REPORT	03/09/2021		
DISTT RAIGARH (C.	G.) 496107.	DATE OF ANALYSIS	START:29/08/2021 END:02/09/2021		
		SAMPLE DETAILS			
SAMPLE TYPE	GROUND WATER	ORDER /REFERENCE:	N/PO/SRV/2122/0045, DTD. 24-JULY-2021		
CUSTMER SAMPLE ID	BANKHETA MINE (PIEZOMETER) AWLR	SAMPLE CONDITION AT RECEIPT	OK		
PACKING OF SAMPLE 3 L X 1 NO. FWC CAN SEALED 1 L X 1 NO. GLASS MOTTLE		SAMPLE COLLECTED BY	CHEMIST		
IS:3025(PART I):1987 RA SAMPLING PROCEDURE 2003; APHA 22ND ED. 2012, 1060-B, 1-39		QUANTITY RECEIVED	5 LTR		

Report No.2126

	TEST REPORT						
SR.	1			AS PER IS	AS PER IS 10500:2012		
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT	
1	Colour	Hazen	IS:3025:(Part-4)	5	15	<1 .	
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeable	
3	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeable	
4	pH	-	APHA 22 nd Ed.2012,4500-H ⁺ -B, 4-92	6.5-8.5	No Relaxation	7.98	
5	Turbidity	NTU	APHA 22 nd Ed.2012,2130-B,2-13	1	5	1.16	
6	Electrical Conductivity	μS/cm	IS 3025(part-14):1984, RA 2013	-	-	164.0	
7	Residual Chlorine	mg/Lit	APHA 22 nd Ed.2012,4500-Cl-G, 4 - 69	0.2	1	N.D.	
8	Total Solid	mg/Lit	APHA 22 nd Ed.2012,2540- B, 2- 64	-		101.4	
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	99.3	
10	Total Suspended Solids	mg/Lit	APHA 22 nd Ed.2012,2540- D, 2- 66		-	2.1	
11	Alkalinity Total (as CaCO ₃)	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	32.0	
12	Total Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,2340-C, 2- 44,45	200	600	46.0	
13	Calcium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500–Ca-B, 3-67	-	-	18.0	
14	Magnesium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	-	-	28.0	
15	Calcium (as Ca)	mg/Lit	APHA 22 nd Ed.2012,3500–Ca-B, 3-67	75	200	7.2	
16	Magnesium (as Mg)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	30	100	6.8	
17	Chloride (as Cl)	mg/Lit	APHA 22 nd Ed.2012,4500-Cl-B, 4-72	250	. 1000	16.9	
18	Sulphate (as SO ₄)	mg/Lit	APHA 22 nd Ed.2012,4500-SO ₄ -E, 4-190	200	400	10.4	
19	Nitrate (as NO ₃)	mg/Lit	APHA 22 nd Ed.2012,4500−NO ₃ -B, 4-122	45	No Relaxation	0.28	
20	Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P-C, 4-153	-	-	N.D.	



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			TEST REPORT				
	AS PER IS 10500:2012						
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT	
21	Sodium (as Na)	mg/Lit	APHA 22nd Ed.2012,3500-Na-B, 3-97	-	- [18.4	
22	Potassium (as K)	mg/Lit	APHA 22 nd Ed.2012,3500-K-B, 3- 87	-	-	1.14	
23	Boron (as B)	mg/Lit	APHA 22 nd Ed.2012,4500-B-B, 4- 25	0.5	1.0	N.D.	
24	Iron (as Fe)	mg/Lit	APHA 22 nd Ed.2012,3111-B,3-18	0.3	No Relaxation	N.D.	
25	Fluoride (as F)	mg/Lit	APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.08	
26	Manganese (as Mn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.1	0.3	N.D.	
27	Lead (as Pb)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.01	No Relaxation	N.D.	
28	Nickel (as Ni)	mg/Lit	APHA 22 nd Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.	
29	Zinc (as Zn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	5	15	N.D.	
30	Copper (as Cu)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.05	1.5	N.D.	
31	Cadmium (as Cd)	mg/Lit	APHA 22 nd Ed.2012,3500-Cd, 3- 105	0.003	No Relaxation	N.D.	
32	Mercury (as Hg)	mg/Lit	APHA 22 nd Ed.2012,3112-B, 3-23	0.001	No Relaxation	N.D.	
33	Arsenic (as As)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	0.05	N.D.	
34	Selenium (as Se)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	No Relaxation	N.D.	
35	Chromium (as Cr)	mg/Lit	APHA 22 nd Ed.2012,3500-Cr-B, 3-69	0.05	No Relaxation	N.D.	
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 nd Ed.2012,5540-C, 5-53	0.2	1.0	N.D.	
37	Phenolic Compound (as C ₆ H ₅ OH)	mg/Lit	APHA 22 nd Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.	
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 nd Ed.2012,6440-6-93	0.0001	No Relaxation	N.D.	
39	Mineral Oil	mg/Lit	IS 3025 (part-39): 1991, RA 2003	0.5	No Relaxation	N.D.	
40	Oil & Grease	mg/Lit	IS 3025 (Part 39):1991, RA 2003	-	-	N.D.	
Micro	obiological Analysis		, 2005				
1	Total Coliforms	MPN/ 100 ML	IS:1622:1981: RA:2019		detectable in ml sample	Absent	
2	Faecal Coliform	MPN/ 100ml	IS:1622:1981: RA:2019		detectable in ml sample	Absent	
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019		detectable in ml sample	Absent	
Pesti	icides						
1	p,p DDT	µg/L	US EPA 508-1995		1	N.D.	
2	o.p DDT	µg/L	US EPA 508-1995		1	N.D.	
3	p,pDDE	µg/L	US EPA 508-1995		1	N.D.	
4	p,p DDD	μg/L	US EPA 508-1995		1	N.D.	
5	O,p DDD	μg/L	US EPA 508-1995		1	N.D.	
6	Gamma-HCH (Lindane)	µg/L	US EPA 508-1995		2	N.D.	



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Report No. 2126

			TEST REPORT			
000000				AS PER IS	10500:2012	
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
7	Alpha-HCH	μg/L	US EPA 508-1995	0.	01	N.D.
8	Beta-HCH	µg/L	US EPA 508-1995	0.	04	N.D.
9	Delta HCH	µg/L	US EPA 508-1995	0.	04	N.D.
10	Alpha-Endosulfan	µg/L	US EPA 508-1995	0	0.4	
11	Beta-Endosulfan	µg/L	US EPA 508-1995	0	0.4	
12	Endosulfansulphate	μg/L	US EPA 508-1995	0	.4	N.D.
13	Monocrotophos	µg/L	US EPA 8141A-1994	1		N.D.
14	Ethion	μg/L	US EPA 8141A-1994	3		N.D.
15	Chloropyrifos	µg/L	US EPA 8141A-1994	30		N.D.
16	Phorate	μg/L	US EPA 8141A-1994		2	N.D.
17	Phoratesulphoxide	µg/L	US EPA 8141A-1994		-	N.D.
18	Phoratesulphone	µg/L	US EPA 8141A-1994		-	N.D.
19	2,4-D	µg/L	US EPA 515.1-1995	3	0	N.D.
20	Alachior	µg/L	US EPA 508- 1995	2	.0	N.D.
21	Atrazine	µg/L	US EPA 532-2000		2	N.D.
22	Methyl parathion	µg/L	US EPA 8141A-1994	. 0	.3	N.D.
23	Methyl paraxone	μg/L	US EPA 8141A-1994		-	N.D.
24	Malathion	µg/L	US EPA 8141A-1994	19	90	N.D.
25	Malaoxon	μg/L	US EPA 8141A-1994		-	N.D.
26	Aldrin	µg/L	US EPA 508- 1995	0.	03	N.D.
27	Dieldrin	µg/L	US EPA 508-1995	0.	03	N.D.

Note: mg/lit.:milligram per liter, N.D.: Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.

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AUTHORIZED SIGNATORY

End of the test report-



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	iama & Address Of The Customer			UES	UES/TR/21-22/2127 UES/21-22/W/3471		
TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE,			REF NO	UES			
			E OF SAMPLING	27/	08/2021		
VILLAGE - BANKHETA, POST -MILUPARA,		DAT	E OF RECEIPT	29/	08/2021		
		DAT	E OF REPORT	03/	09/2021		
DISTT RAIGAR	DATE OF ANALYSIS		STAR	START:29/08/2021 END:02/09/2021			
SAME			PLE DETAILS				
SAMPLE TYPE	PLE TYPE GROUND WATER		ORDER /REFERENCE:		N/PO/SRV/2122/0045, DTD. 24-JULY-2021		
CUSTMER SAMPLE ID	PANTTEROT, MINE (PIEZOMETER) AUT.R		SAMPLE CONDITION RECEIPT	ON AT	OK		
PACKING OF SAMPLE 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN SEALED 1 L X 1 NO. GLASS BOTTLE		SAMPLE COLLECTED BY		D BY CHEMIST			
SAMPLING PROCEDURE	TS: 3025 (PART I): 1987 RA 2003:			QUANTITY RECEIVED 5 LTR			

Report No.2127

			TEST REPORT				
SR.				AS PER IS	AS PER IS 10500:2012		
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit			
1	Colour	Hazen	IS:3025:(Part-4)	5	15	<1	
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeable	
3	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeable	
4	рН	1-	ΑΡΗΛ 22 nd Ed.2012,4500-H+-B, 4-92	6.5-8.5	NoRelaxation	6.86	
5	Turbidity	NTU	APHA 22 nd Ed.2012,2130-B,2-13	1	5	2.8	
6	Electrical Conductivity	μS/cm	IS 3025(part-14):1984, RA 2013	-	-	168.0	
7	Residual Chlorine	mg/Lit	APHA 22 nd Ed.2012,4500-CI-G, 4 - 69	0.2	1	N.D.	
8	Total Solid	mg/Lit	APHA 22 nd Ed.2012,2540- B, 2- 64	- 1	-	103.2	
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	101.8	
10	Total Suspended Solids	mg/Lit	APHA 22 nd Ed.2012,2540- D, 2- 66	-	-	1.4	
11	Alkalinity Total (as CaCO ₃)	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	42.0	
12	Total Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,2340-C, 2- 44,45	200	. 600	72.0	
13	Calcium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca-B, 3-67		-	36.0	
14	Magnesium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	_	-	36.0	
15	Calcium (as Ca)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca-B, 3-67	75	200	14.4	
16	Magnesium (as Mg)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	30	100	8.7	
17	Chloride (as CI)	mg/Lit	APHA 22 nd Ed.2012,4500-CI-B, 4-72	250	1000	16.9	
18	Sulphate (as SO ₄)	mg/Lit	APHA 22 nd Ed.2012,4500-SO ₄ -E, 4-190	200	400	12.4	
19	Nitrate (as NO ₃)	mg/Lit	APHA 22 nd Ed.2012,4500-NO ₃ - B,4-122	45	NoRelaxation	2.2	
20	Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P-C, 4-153	-		N.D.	



Alpha-HCH

HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph: 0771 - 4027777 | Email: ultimatenviro@gmail.com

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			TEST REPORT			
I Editor				AS PER IS	10500:2012	
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
21	Sodium (as Na)	mg/Lit	APHA 22nd Ed.2012,3500-Na-B, 3-97	-	-	8.6
22	Potassium (as K)	mg/Lit	APHA 22 nd Ed.2012,3500-K-B, 3-87	-	-	0.28
23	Boron (as B)	mg/Lit	APHA 22 nd Ed.2012,4500-B-B, 4-25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 nd Ed.2012,3111-B,3-18	0.3	NoRelaxation	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	N.D.
26	Manganese (as Mn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.1	0.3	N.D.
27	Lead (as Pb)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.01	NoRelaxation	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 nd Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 rd Ed.2012,3500-Cd, 3- 105	0.003	NoRelaxation	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 nd Ed.2012,3112-B, 3-23	0.001	NoRelaxation	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	NoRelaxation	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22 ^{nc} Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxation	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 nd Ed.2012,5540-C, 5-53	0.2	1.0	N.D.
37	Phenolic Compound (as C ₆ H ₅ OH)	mg/Lit	APHA 22 nd Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 nd Ed.2012,6440-6-93	0.0001	NoRelaxation	N.D.
39	Mineral Oil	mg/Lit	IS 3025 (part-39) : 1991, RA 2003	0.5	No Relaxation	N.D.
40	Oil & Grease	mg/Lit	IS 3025 (Part 39):1991, RA 2003,	-	-	N.D.
4icro	biological Analysis	L	1 2000).			
1	Total Coliforms	MPN/ 100 ML	IS:1622:1981: RA:2019		detectable in any nl sample	Absent
2	Faecal Coliform	MPN/ 100ml	IS:1622:1981: RA:2019	100 m	detectable in any	Absen
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019	Shall not be d	detectable in any al sample	Absent
Pesti	cides		1			
1	p,p DDT	µg/L	US EPA 508-1995		1	N.D.
2	o.p DDT	µg/L	US EPA 508-1995		1	N.D.
3	p,pDDE	µg/L	US EPA 508-1995		1.	N.D.
4	p,p DDD	µg/L	US EPA 508-1995		1	N.D.
5	O,p DDD	µg/L	US EPA 508-1995		1	N.D.
6	Gamma-HCH (Lindane)	μg/L	US EPA 508-1995		2	N.D.
				Personal report report and a control of		

0.01

N.D.

μg/L US EPA 508-1995



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Report No. 2127

			TEST REPORT			
	i e			AS PER IS	10500:2012	
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
8	Beta-HCH	µg/L	US EPA 508-1995	0.	04	N.D.
9	Delta HCH	µg/L	US EPA 508-1995	0.	.04	N.D.
10	Alpha-Endosulfan	µg/L	US EPA 508-1995	0.4		N.D.
11	Beta-Endosulfan	µg/L	US EPA 508-1995	0.4		N.D.
12	Endosulfansulphate	µg/L	US EPA 508-1995	0.4		N.D.
13	Monocrotophos	μg/L	US EPA 8141A-1994	1		N.D.
14	Ethion	µg/L	US EPA 8141A-1994	3		N.D.
15	Chloropyrifos	µg/L	US EPA 8141A-1994	30		N.D.
16	Phorate	µg/L	US EPA 8141A-1994	2		N.D.
17	Phoratesulphoxide	µg/L	US EPA 8141A-1994	-		N.D.
18	Phoratesulphone	µg/L	US EPA 8141A-1994		-	N.D.
19	2,4-D	µg/L	US EPA 515.1-1995		30	N.D.
20	Alachlor	µg/L	US EPA 508- 1995	2	20	N.D.
21	Atrazine	µg/L	US EPA 532-2000		2	N.D.
22	Methyl parathion	µg/L	US EPA 8141A-1994	0	.3	N.D.
23	Methyl paraxone	µg/L	US EPA 8141A-1994	EPA 8141A-1994 -		N.D.
24	Malathion	µg/L	US EPA 8141A-1994 190		N.D.	
25	Malaoxon	µg/L	US EPA 8141A-1994			N.D.
26	Aldrin	µg/L	US EPA 508- 1995	0.	.03	N.D.
27	Dieldrin	µg/L	US EPA 508-1995	0.	.03	N.D.

Note: mg/lit.:milligram per liter, N.D.- Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- > The report for publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for 15days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.

WEAR AND TO SEE THE SE

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AUTHORIZED SIGNATORY

1100 0001 0015 1100 11001 0015 1100 15001 0010 OFFICIER I ADORATOR



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Name & Address Of The Gu	stamer	REPO	RT NO	UES/TR/21-2		
то,		REF NO	UES/21-22/W/3542		42	
HINDALCO INDUSTR	IES LIMITED,	DATE	OF SAMPLING	27/08/2021		
GARE PALMA - IV/5,		DATE	OF RECEIPT	29/08/2021		
U/G COAL MINE, VILL	AGE – MILUPARA,	DATE	OF REPORT	03/09/2021		
BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107			E OF ANALYSIS START:29/08/2		021	END: 02/09/2021
			E DETAILS			
SAMPLE TYPE	GROUND WATER		ORDER /REFE	RENCE:	1	PO/SRV/2122/0049, D. 24-JULY-2021
CUSTMER SAMPLE ID	NEAR MILUPARA MINES OFFICE PIEZOMETER -AWLR		SAMPLE COND.	ITION AT	OK	
PACKING OF SAMPLE	BOTTLE		SAMPLE COLLECTED BY		сни	emist
SAMPLING PROCEDURE	IS:3025(PART I):1987 APHA 22ND ED. 2012,	QUANTITY REC	CEIVED	5 1	LTR	

REPORT NO. -2161

			TEST REPORT			
SR.			AS PER IS	10500:2012		
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
1	Colour	Hazen	IS:3025:(Part-4)	5	15	<1
2	Odour	=	IS 3025(part-5)	Agreeable	Agreeable	Agreeable
3	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeable
4	рН	-	APHA 22 nd Ed.2012,4500-H ⁺ -B, 4-92	6.5-8.5	No Relaxation	6.62
5	Turbidity	NTU	APHA 22 nd Ed.2012,2130-B,2-13	1	5	2.2
6	Electrical Conductivity	μS/cm	IS 3025(part-14):1984, RA 2013	-	-	182.0
7	Residual Chlorine	mg/Lit	APHA 22 nd Ed.2012,4500-Cl-G,4 - 69	0.2	1	N.D.
8	Total Solid	mg/Lit	APHA 22 nd Ed.2012,2540- B, 2- 64	- /	-	117.1
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	110.3
10	Total Suspended Solids	mg/Lit	APHA 22 nd Ed.2012,2540- D, 2- 66	- 1	•	6.8
11	Alkalinity Total (as CaCO ₃)	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	22.0
12	Total Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,2340-C, 2- 44,45	200	600	54.0
13	Calcium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca-B, 3-67	-	-	36.0
14	Magnesium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	-	-	18.0
15	Calcium (as Ca)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca-B, 3-67	75	200	14.4
16	Magnesium (as Mg)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	30	100	4.3
17	Chloride (as Cl)	mg/Lit	APHA 22 nd Ed.2012,4500-Cl-B, 4-72	250	1000	18.9
18	Sulphate (as SO ₄)	mg/Lit	APHA 22 nd Ed.2012,4500-SO ₄ - E,4-190	200	400	12.6
19	Nitrate (as NO ₃)	mg/Lit	APHA 22 nd Ed.2012,4500-NO ₃ -B, 4-122	45	NoRelaxation	1.8



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REPORT NO2161		

			TEST REPORT			
SR.				AS PER IS	10500:2012	Elym.
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESUL
20	Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P-C, 4-153	-	-	N.D.
20	Sodium (as Na)	mg/Lit	APHA 22ndEd.2012,3500-Na-B, 3-97		-	6.8
21	Potassium (as K)	mg/Lit	APHA 22 nd Ed.2012,3500-K-B, 3- 87	-	-	0.89
22	Boron (as B)	mg/Lit	APHA 22 nd Ed.2012,4500–B-B, 4- 25	0.5	1.0	N.D.
23	Iron (as Fe)	mg/Lit	APHA 22 nd Ed.2012,3111-B,3-18	0.3	NoRelaxation	N.D.
24	Fluoride (as F)	mg/Lit	APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.08
25	Manganese (as Mn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.1	0.3	N.D.
26	Lead (as Pb)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.01	NoRelaxation	N.D.
27	Nickel (as Ni)	mg/Lit	APHA 22 nd Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.
28	Zinc (as Zn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	5	15	N.D.
29	Copper (as Cu)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.05	1.5	N.D.
30	Cadmium (as Cd)	mg/Lit	APHA 22 nd Ed.2012,3500-Cd,3- 105	0.003	NoRelaxation	N.D.
31	Mercury (as Hg)	mg/Lit	APHA 22 nd Ed.2012,3112-B, 3-23	0.001	NoRelaxation	N.D.
32	Arsenic (as As)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	0.05	N.D.
33	Selenium (as Se)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	NoRelaxation	N.D.
34	Chromium (as Cr)	mg/Lit	APHA 22 nd Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxation	N.D.
35	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 nd Ed.2012,5540-C, 5-53	0.2	1.0	N.D.
36	Phenolic Compound (as C ₆ H ₅ OH)	mg/Lit	APHA 22 nd Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
37	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 nd Ed.2012,6440-6-93	0.0001	NoRelaxation	N.D.
38	Mineral Oil	mg/Lit	IS 3025 (part-39) : 1991, RA 2003	0.5	No Relaxation	N.D.
39	Oil & Grease	mg/Lit	IS 3025 (Part 39):1991, RA 2003		-	N.D.
Micro	obiological Analysis					
1	Total Coliforms	MPN/ 100 ML	IS:1622:1981: RA:2019		detectable in any	Absent
2	Faecal coliform	MPN/ 100ml	IS:1622:1981: RA:2019		detectable in any	Absent
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019		detectable in any	Absent
Pesti	cides				1	7.000
1	p,p DDT	μg/L	US EPA 508-1995		1	N.D.
2	o.p DDT	μg/L	US EPA 508-1995		1	N.D.
3	p,pDDE	µg/L	US EPA 508-1995		1	N.D.
4	p,p DDD	µg/L	US EPA 508-1995		1	N.D.



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REPORT NO. -2161

TEST REPORT								
				AS PER IS	10500:2012	HE		
SR. NO.	PARAMETER	AMETER UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT		
5	O,p DDD	µg/L	US EPA 508-1995		1			
6	Gamma-HCH (Lindane)	μg/L	US EPA 508-1995	JS EPA 508-1995 2		N.D.		
7	Alpha-HCH	μg/L	US EPA 508-1995	0	0.01	N.D.		
8	Beta-HCH	µg/L	US EPA 508-1995	0	0.04	N.D.		
9	Delta HCH	µg/L	US EPA 508-1995	0	0.04	N.D.		
10	Alpha-Endosulfan	μg/L	US EPA 508-1995		0.4	N.D.		
11	Beta-Endosulfan	μg/L	US EPA 508-1995		0.4	N.D.		
12	Endosulfansulphat e	μg/L	US EPA 508-1995	0.4		N.D.		
13	Monocrotophos	µg/L	US EPA 8141A-1994	US EPA 8141A-1994 1		N.D.		
14	Ethion	μg/L	US EPA 8141A-1994	US EPA 8141A-1994 3		N.D.		
15	Chloropyrifos	µg/L	US EPA 8141A-1994		30	N.D.		
16	Phorate	µg/L	US EPA 8141A-1994		2	N.D.		
17	Phoratesulphoxide	µg/L	US EPA 8141A-1994		-	N.D.		
18	Phoratesulphone	µg/L	US EPA 8141A-1994		-	N.D.		
19	2,4-D	µg/L	US EPA 515.1-1995		30	N.D.		
20	Alachlor	µg/L	US EPA 508- 1995		20	N.D.		
21	Atrazine	µg/L	US EPA 532-2000		2	N.D.		
22	Methyl parathion	µg/L	US EPA 8141A-1994		0.3	N.D.		
23	Methyl paraxone	µg/L	US EPA 8141A-1994		-	N.D.		
24	Malathion	µg/L	US EPA 8141A-1994		190	N.D.		
25	Malaoxon	µg/L	US EPA 8141A-1994			N.D.		
26	Aldrin	μg/L	US EPA 508- 1995	(0.03	N.D.		
27	Dieldrin	µg/L	US EPA 508-1995	(0.03	N.D.		

Dieldrin µg/L US EPA 508-Note: mg/lit.: milligram per liter, N.D. - Not Detected

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- > The report for publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for 15days after issue of test report unless otherwise agreed with customer.

> This is for information as the party has asked for above test(s) only

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202

-End of the test report--



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Name & Address Of The Gu	stomar	REPOR	RT NO	UES/TR/21-	22/2	2160
то,		REF NO	UES/21-22/W/3542			
GARE PALMA – IV/5, MILUPARA DATE			OF SAMPLING	27/08/2021		
			OF RECEIPT	29/08/2021	Ĺ	
U/G COAL MINE,VILL	AGE - MILUPARA,	DATE	OF REPORT	03/09/2021	21	
BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107			OF ANALYSIS START: 29/08/			END: 02/09/2021
THE HOUSE		SAMP	LE DETAILS			
SAMPLE TYPE	GROUND WATER		ORDER /REFERENCE:			O/SRV/2122/0049, . 24-JULY-2021
CUSTMER SAMPLE ID	STAFF QUARTER-BANJIKHOL PIEZOMETER (AWLR)		SAMPLE CONDIT	TION AT RECEIPT	ок	
3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE		SAMPLE COLLECTED BY		СНЕЗ	MIST	
SAMPLING PROCEDURE IS:3025(PART I):1987 RA 2003; APHA 22ND ED. 2012, 1060-B, 1-39			QUANTITY RECE	IVED	5 L	TR

REPORT NO. 2160

TEST REPORT								
SR. NO.	PARAMETER	UNIT	METHOD OF TEST		E LIMIT FOR R (IS 10500:2012) Permissible limit	RESULT		
1	Colour	Hazen	IS:3025:(Part-4)	5	15	<1		
2	Odour	-	IS 3025:(part-5)	Agreeable	Agreeable	Agreeabl		
3	Taste	-	IS 3025:(part-8)	Agreeable	Agreeable	Agreeable		
4	рН	1 -1-	APHA 22 nd Ed.2012,4500-H+-B, 4-92	6.5-8.5	No Relaxation	6.98		
5	Turbidity	NTU	APHA 22 nd Ed.2012,2130-B,2-13	1	5	1.26		
6	Electrical Conductivity	µS/cm	IS 3025(part-14):1984, RA 2013	-	-	224.0		
7	Residual Chlorine	mg/Lit	APHA 22 nd Ed.2012,4500-CI-G, 4 - 69	0.2	1	N.D.		
8	Total Solid	mg/Lit	APHA 22 nd Ed.2012,2540- B, 2- 64		-	148.3		
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	135.7		
10	Total Suspended Solids	mg/Lit	APHA 22 nd Ed.2012,2540- D, 2- 66	-	-	12.6		
11	Alkalinity Total (as CaCO ₃)	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	36.0		
12	Total Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,2340-C, 2- 44,45	200	600	78.0		
13	Calcium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500–Ca-B, 3-67	-	-	42.0		
14	Magnesium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500–Mg-B, 3-84	-	-	36.0		
15	Calcium (as Ca)	mg/Lit	APHA 22 nd Ed.2012,3500–Ca-B, 3-67	75	200	16.8		
16	Magnesium (as Mg)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	30	100	8.74		
17	Chloride (as CI)	mg/Lit	APHA 22 nd Ed.2012,4500-CI-B, 4-72	250	1000	36.9		
18	Sulphate (as SO ₄)	mg/Lit	APHA 22 nd Ed.2012,4500-SO ₄ - E,4-190	200	400	22.4		
19	Nitrate (as NO ₃)	mg/Lit	APHA 22 nd Ed.2012,4500-NO ₃ - B,4-122	45	NoRelaxati on	0.68		
20	Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P-C, 4-153	-	-	N.D.		



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			TEST REPORT			
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	CHORDS OWNERS THE RESIDENCE OF THE	E LIMIT FOR R (IS 10500:2012) Permissible limit	RESULT
21	Sodium (as Na)	mg/Lit	APHA 22ndEd.2012,3500-Na-B, 3-97	-	-	6.2
22	Potassium (as K)	mg/Lit	APHA 22 nd Ed.2012,3500-K-B, 3-87	-	-	1.8
23	Boron (as B)	mg/Lit	APHA 22 nd Ed.2012,4500-B-B, 4- 25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 nd Ed.2012,3111-B,3-18	0.3	NoRelaxati on	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.14
26	Manganese (as Mn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.1	0.3	N.D.
27	Lead (as Pb)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.01	NoRelaxati on	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 nd Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 nd Ed.2012,3500-Cd, 3- 105	0.003	NoRelaxati on	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 nd Ed.2012,3112-B, 3-23	0.001	NoRelaxati on	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	NoRelaxati on	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22 nd Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxati on	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 nd Ed.2012,5540-C, 5-53	0.2	1.0	N.D.
37	Phenolic Compound (as C ₆ H ₅ OH)	mg/Lit	APHA 22 nd Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 nd Ed.2012,6440-6-93	0.0001	NoRelaxati on	N.D.
39	Mineral Oil	mg/Lit	IS 3025 (part-39): 1991, RA 2003	0.5	No Relaxation	N.D.
40	Oil & Grease	mg/Lit	IS 3025 (Part 39):1991, RA 2003	-	-	N.D.
Microl	piological Analysis					
1	Total Coliforms	MPN/ 100 ML	IS:1622:1981: RA:2019		detectable in ml sample	Absent
2	Faecal coliform	MPN/ 100ml	IS:1622:1981: RA:2019	Shall not be	detectable in ml sample	Absent
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019		detectable in nl sample	Absent
Pestic	ides	-	111111111111111111111111111111111111111		***************************************	
1	p,p DDT	μg/L	US EPA 508-1995		1	N.D.
2	o.p DDT	μg/L	US EPA 508-1995		1	N.D.
3	p,pDDE	μg/L	US EPA 508-1995		1	N.D.
4	p,p DDD	μg/L	US EPA 508-1995		1	N.D.
5	O,p DDD	μg/L	US EPA 508-1995		1	N.D.
6	Gamma-HCH (Lindane)	µg/L	US EPA 508-1995		2	N.D.
7	Alpha-HCH	μg/L	US EPA 508-1995	0.	01	N.D.



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REPORT NO. 2160

	TEST REPORT							
SR.				ACCEPTABLE DRINKING WATER		DECILIT		
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT		
8	Beta-HCH	μg/L	US EPA 508-1995	0.0	0.04			
9	Delta HCH	μg/L	US EPA 508-1995	0.0	4	N.D.		
10	Alpha-Endosulfan	μg/L	US EPA 508-1995	0.4	4	N.D.		
11	Beta-Endosulfan	μg/L	US EPA 508-1995	0.4	1	N.D.		
12	Endosulfansulphate	µg/L	US EPA 508-1995	0.4	1	N.D.		
13	Monocrotophos	μg/L	US EPA 8141A-1994	1		N.D.		
14	Ethion	μg/L	US EPA 8141A-1994	3	3			
15	Chloropyrifos	μg/L	US EPA 8141A-1994	30	30			
16	Phorate	μg/L	US EPA 8141A-1994	2	2			
17	Phoratesulphoxide	μg/L	US EPA 8141A-1994	-		N.D.		
18	Phoratesulphone	μg/L	US EPA 8141A-1994	-		N.D.		
19	2,4-D	µg/L	US EPA 515.1-1995	30)	N.D.		
20	Alachlor	μg/L	US EPA 508- 1995	20)	N.D.		
21	Atrazine	µg/L	US EPA 532-2000	2		N.D.		
22	Methyl parathion	µg/L	US EPA 8141A-1994	0.3	3	N.D.		
23	Methyl paraxone	μg/L	US EPA 8141A-1994					
24	Malathion	µg/L	US EPA 8141A-1994	190		N.D.		
25	Malaoxon	µg/L	US EPA 8141A-1994	•		N.D.		
26	Aldrin	µg/L	US EPA 508- 1995	0.03		N.D.		
27	Dieldrin	µg/L	US EPA 508-1995	0.03		N.D.		

Note: mg/lit.:milligram per liter, N.D. - Not Detected.

REMARKS: RESULTS ARE AS ABOVE

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End of the test report-



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Name & Address Of The	Gustomer	REPO	ORT NO	UES/TR/	21-22/2	162	
TO,		LAB	REF NO	UES/21-22/W/3544			
HINDALCO INDUSTR	DATE	E OF SAMPLING	27/08/2021				
GARE PALMA - IV/5,	DATE	E OF RECEIPT	29/08/2)21			
U/G COAL MINE, VILL	U/G COAL MINE, VILLAGE - MILUPARA,		E OF REPORT	03/09/2021			
BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE	E OF ANALYSIS	START:29/	08/2021	END:02/09/2021	
		SAMPI	E DETAILS	E VERSION		G SHAN	
SAMPLE TYPE	GROUND WATER		ORDER /REFERENCE:			SRV/2122/0049, 24-JULY-2021	
CUSTMER SAMPLE ID	USTMER SAMPLE ID MILUPARA VILLAGE NEAR PHC- HIL (DUGWELL)		SAMPLE CONDITION AT RECEIPT		OK		
PACKING OF SAMPLE 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE		SEALED	SAMPLE COLLEC	CTED BY	СНЕМІ	CHEMIST	
SAMPLING PROCEDURE IS:3025(PART I):1987 RA 2003; APHA 22ND ED. 2012,1060-B,1-39		QUANTITY RECEIVED		5 LTR			

TEST REPORT								
-		1		AS PER IS	10500:2012			
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT		
1	Colour	Hazen	IS:3025:(Part-4)	5	15	<1		
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeable		
3	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeable		
4	рН	-	APHA 22 nd Ed.2012,4500-H+-B, 4-92	6.5-8.5	No Relaxation	6.96		
5	Turbidity	NTU	APHA 22 nd Ed.2012,2130-B,2-13	1	5	2.6		
6	Electrical Conductivity	μS/cm	IS 3025(part-14):1984, RA 2013	- 1	-	268.0		
7	Residual Chlorine	mg/Lit	APHA 22 nd Ed.2012,4500-CI-G, 4 - 69	0.2	1	N.D.		
8	Total Solid	mg/Lit	APHA 22 nd Ed.2012,2540- B, 2- 64		-	178.2		
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	162.4		
10	Total Suspended Solids	mg/Lit	APHA 22 nd Ed.2012,2540- D, 2- 66		-	16.2		
11	Alkalinity Total (as CaCO ₃)	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	38.0		
12	Total Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,2340-C, 2- 44,45	200	600	86.0		
13	Calcium Hardness (as CaCO3)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca- B,3-67		-	52.0		
14	Magnesium Hardness (as CaCO3)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg- B,3-84	-	-	34.0		
15	Calcium (as Ca)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca- B,3-67	75	200	20.8		
16	Magnesium (as Mg)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	30	100	8.2		
17	Chloride (as Cl)	mg/Lit	APHA 22 nd Ed.2012,4500-Cl-B, 4-72	250	1000	16.9		
18	Sulphate (as SO ₄)	mg/Lit	APHA 22 nd Ed.2012,4500-SO ₄ - E, 4-190	200	400	26.8		
19	Nitrate (as NO ₃)	mg/Lit	APHA 22 nd Ed.2012,4500-NO ₃ - B,4-122	45	NoRelaxatio n	4.6		
20	Phosphate (as P)	mg/Lit	APHA 22ndEd.2012,4500-P-C, 4-153	-	-	N.D.		



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			TEST REPORT			
SR.				AS PER IS	10500:2012	Marine seems
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
21	Sodium (as Na)	mg/Lit	APHA 22nd Ed.2012,3500-Na- B, 3-97	-	-	6.8
22	Potassium (as K)	mg/Lit	APHA 22 nd Ed.2012,3500-K-B, 3-87	-	- 1	1.4
23	Boron (as B)	mg/Lit	APHA 22 nd Ed.2012,4500-B-B, 4-25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 nd Ed.2012,3111-B,3- 18	0.3	NoRelaxatio n	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.04
26	Manganese (as Mn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3- 18	0.1	0.3	0.18
27	Lead (as Pb)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3- 18	0.01	NoRelaxatio n	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 nd Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3- 18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3- 18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 nd Ed.2012,3500-Cd, 3- 105	0.003	NoRelaxatio	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 nd Ed.2012,3112-B, 3- 23	0.001	NoRelaxatio n	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3- 38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	NoRelaxatio	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22 nd Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxatio n	N.D.
36	Anionic Detergent	mg/Lit	APHA 22 nd Ed.2012,5540-C, 5-	0.2	1.0	N.D.
37	(as MBAS) Phenolic Compound	mg/Lit	APHA 22 nd Ed.2012,5540-B & C,	0.001	0.002	N.D.
38	(as C ₆ H ₅ OH) Poly-nuclear Aromatic	µg/Lit	APHA 22 nd Ed.2012,6440-6-93	0.0001	NoRelaxatio	N.D.
39	Hydrocarbon (PAH) Mineral Oil	mg/Lit	IS 3025 (part-39) : 1991, RA	0.5	n No	N.D.
		3	2003 IS 3025 (Part 39):1991, RA	0.5	Relaxation	
40	Oil & Grease	mg/Lit	2003	-		N.D.
MICEC	biological Analysis	MONIA	T	·		
1	Total Coliforms	MPN/ 100 ML	IS:1622:1981: RA:2019		etectable in any sample	Absent
2	Faecal coliform	MPN/ 100ml	IS:1622:1981: RA:2019		etectable in any	Absent
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019	Shall not be de	etectable in any sample	Absent
Pesti	cides	1001111	L	100111	outriple	
1	p,p DDT	µg/L	US EPA 508-1995		1	N.D.
2	o.p DDT	µg/L	US EPA 508-1995		1	N.D.
3	p,pDDE	µg/L	US EPA 508-1995		1	N.D.
4	p,p DDD	µg/L	US EPA 508-1995		1	N.D.



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REPORT NO. - 2162

TEST REPORT							
				AS PER IS	10500:2012		
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT	
5	O,p DDD	µg/L	US EPA 508-1995		L	N.D.	
6	Gamma-HCH (Lindane)	μg/L	US EPA 508-1995	1 2	2	N.D.	
7	Alpha-HCH	μg/L	US EPA 508-1995	0.0	01	N.D.	
8	Beta-HCH	µg/L	US EPA 508-1995	0.0	04	N.D.	
9	Delta HCH	μg/L	US EPA 508-1995	0.0	04	N.D.	
10	Alpha-Endosulfan	µg/L	US EPA 508-1995	0.	.4	N.D.	
11	Beta-Endosulfan	μg/L	US EPA 508-1995	0.	.4	N.D.	
12	Endosulfansulphate	µg/L	US EPA 508-1995	0.	0.4		
13	Monocrotophos	µg/L	US EPA 8141A-1994	1		N.D.	
14	Ethion	μg/L	US EPA 8141A-1994	3		N.D.	
15	Chloropyrifos	µg/L	US EPA 8141A-1994	30		N.D.	
16	Phorate	μg/L	US EPA 8141A-1994	2	2	N.D.	
17	Phoratesulphoxide	μg/L	US EPA 8141A-1994			N.D.	
18	Phoratesulphone	µg/L	US EPA 8141A-1994		-	N.D.	
19	2,4-D	µg/L	US EPA 515.1-1995	3	0	N.D.	
20	Alachlor	µg/L	US EPA 508- 1995	2	0	N.D.	
21	Atrazine	µg/L	US EPA 532-2000		2	N.D.	
22	Methyl parathion	µg/L	US EPA 8141A-1994	0.	.3	N.D.	
23	Methyl paraxone	µg/L	US EPA 8141A-1994		-	N.D.	
24	Malathion	µg/L	US EPA 8141A-1994	19	90	N.D.	
25	Malaoxon	µg/L	US EPA 8141A-1994			N.D.	
26	Aldrin	µg/L	US EPA 508- 1995	0.0	03	N.D.	
27	Dieldrin	µg/L	US EPA 508-1995	0.0	03	N.D.	

Note: mg/lit.: milligram per liter, N.D. - Not Detected.

REMARKS: RESULTS ARE AS ABOVE
Terms & conditions

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This is for information as the party has asked for above test(s) only.

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End of the test report-



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Name & Address Of The Cus	tomer		REPORT NO	UES/TR/21-22/2	128		
TO,		- 1	LAB REF NO	UES/21-22/W/03	ES/21-22/W/03472		
HINDALCO INDUST	RIES LIMITED,		DATE OF SAMPLING	27/08/2021			
GARE PALMA - IV/4	, COAL MINE, VILLAG)E -	DATE OF RECEIPT	29/08/2021			
BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107.			DATE OF REPORT	03/09/2021			
			DATE OF ANALYSIS	START:29/08/2021 END:02/09/2021			
SAMPLE TYPE	GROUND WATER		ORDER /REFERENCE:	N/PO/SRV/2122/0045, DTD. 24-JULY-202			
SAMPLE TYPE	GROUND WATER		ORDER /REFERENCE:	N/PO/SRV/2122/0045, DTD. 24-JULY-202			
	 		SAMPLE CONDITION				
CUSTMER SAMPLE ID	SAKTA VILLAGE, (DUGWE	ILL)	SAMPLE CONDITION AT RECEIPT	OK			
CUSTMER SAMPLE ID	SAKTA VILLAGE, (DUGWE 3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SEALED		OK CHEMIST			

Report	No	2128

			TEST REPORT			
				AS PER IS	10500:2012	RESULT
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	
1	Colour	Hazen	IS:3025:(Part-4)	5	15	2.8
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeable
3	Taste	i –	IS 3025(part-8)	Agreeable	Agreeable	Agreeable
4	pH	-	APHA 22 nd Ed.2012,4500-H+-B, 4-92	6.5-8.5	NoRelaxatio n	7.48
5	Turbidity	NTU	APHA 22 nd Ed.2012,2130-B,2-13	1	5	2.6
6	Electrical Conductivity	μS/cm	IS 3025(part-14):1984, RA 2013		-	248.2
7	Residual Chlorine	mg/Lit	APHA 22 nd Ed.2012,4500-CI-G, 4 - 69	0.2	1	N.D.
8	Total Solid	mg/Lit	APHA 22 nd Ed.2012,2540- B, 2- 64	- 1		155.2
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	150.4
10	Total Suspended Solids	mg/Lit	APHA 22 nd Ed.2012,2540- D, 2-		-	4.8
11	Alkalinity Total (as CaCO ₃)	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	76.0
12	Total Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,2340-C, 2- 44,45	200	. 600	102.0
13	Calcium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca-B, 3-67	-	-	46.0
14	Magnesium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	_	-	56.0
15	Calcium (as Ca)	mg/Lit	APHA 22 nd Ed.2012,3500–Ca-B, 3-67	75	200	18.4
16	Magnesium (as Mg)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	30	100	13.6
17	Chloride (as Cl)	mg/Lit	APHA 22 nd Ed.2012,4500-Cl-B, 4-72	250	1000	18.9
18	Sulphate (as SO ₄)	mg/Lit	APHA 22 nd Ed.2012,4500-SO ₄ -E, 4-190	200	400	28.4
19	Nitrate (as NO ₃)	mg/Lit	APHA 22 nd Ed.2012,4500-NO ₃ -B, 4-122	45	NoRelaxatio n	0.64
20	Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P-	-		N.D.



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			TEST REPORT			
				AS PER IS	10500:2012	
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
			C,4-153			
21	Sodium (as Na)	mg/Lit	APHA 22nd Ed.2012,3500-Na- B,3-97	-	-	16.2
22	Potassium (as K)	mg/Lit	APHA 22 nd Ed.2012,3500-K-B, 3-87	-	-	0.72
23	Boron (as B)	mg/Lit	APHA 22 nd Ed.2012,4500-B-B, 4-25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 nd Ed.2012,3111-B,3-18	0.3	NoRelaxatio n	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.12
26	Manganese (as Mn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3- 18	0.1	0.3	0.08
27	Lead (as Pb)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3- 18	0.01	NoRelaxatio n	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 nd Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3- 18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 nd Ed.2012,3500-Cd, 3- 105	0.003	NoRelaxatio n	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 nd Ed.2012,3112-B, 3- 23	0.001	NoRelaxatio n	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3- 38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-	0.01	NoRelaxatio n	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22 nd Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxatio n	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 nd Ed.2012,5540-C, 5- 53	0.2,	1.0	N.D.
37	Phenolic Compound (as C ₆ H ₅ OH)	mg/Lit	APHA 22 nd Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 nd Ed.2012,6440-6-93	0.0001	NoRelaxatio n	N.D.
39	Mineral Oil	mg/Lit	IS 3025 (part-39) : 1991, RA 2003	0.5	No Relaxation	N.D.
40	Oil & Grease	mg/Lit	IS 3025 (Part 39):1991, RA 2003	-		N.D.
Micro	obiological Analysis	and the second second				
1	Total Coliforms	MPN/ 100 ML	IS:1622:1981: RA:2019		etectable in any I sample	Absent
2	Faecal coliform	MPN/ 100ml	IS:1622:1981: RA:2019		etectable in any	Absent
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019	Shall not be d	etectable in any	Absent
Pest	icides					
1	p,p DDT	μg/L	US EPA 508-1995		1	N.D.
2	o.p DDT	µg/L	US EPA 508-1995		1	N.D.
3	p,pDDE	µg/L	US EPA 508-1995		1	N.D.



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Report No.2128

			TEST REPORT			
				AS PER IS 1	0500:2012	RESULT
SR. NO.	PARAMETER	PARAMETER UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	
4	p,p DDD	µg/L	US EPA 508-1995	1		N.D.
5	O,p DDD	µg/L	US EPA 508-1995	1		N.D.
6	Gamma-HCH (Lindane)	µg/L	US EPA 508-1995	2		N.D.
7	Alpha-HCH	µg/L	US EPA 508-1995	0.0	1	N.D.
8	Beta-HCH	μg/L	US EPA 508-1995	0.0	4	N.D.
9	Delta HCH	µg/L	US EPA 508-1995	0.0	4	N.D.
10	Alpha-Endosulfan	µg/L	US EPA 508-1995	0.4	1	N.D.
11	Beta-Endosulfan	µg/L	US EPA 508-1995	0.4	1	N.D.
12	Endosulfansulphate	µg/L	US EPA 508-1995	0.4	0.4	
13	Monocrotophos	µg/L	US EPA 8141A-1994	1 1		N.D.
14	Ethion	µg/L	US EPA 8141A-1994	3	3	
15	Chloropyrifos	µg/L	US EPA 8141A-1994	30)	N.D.
16	Phorate	μg/L	US EPA 8141A-1994	2		N.D.
17	Phoratesulphoxide	µg/L	US EPA 8141A-1994	-		N.D.
18	Phoratesulphone	µg/L	US EPA 8141A-1994	-		N.D.
19	2,4-D	µg/L	US EPA 515.1-1995	30)	N.D.
20	Alachlor	µg/L	US EPA 508- 1995	20		N.D.
21	Atrazine	µg/L	US EPA 532-2000	2		N.D.
22	Methyl parathion	µg/L	US EPA 8141A-1994	0.3	3	N.D.
23	Methyl paraxone	µg/L	US EPA 8141A-1994	-		N.D.
24	Malathion	µg/L	US EPA 8141A-1994	19	0	N.D.
25	Malaoxon	µg/L	US EPA 8141A-1994	-		N.D.
26	Aldrin	µg/L	US EPA 508- 1995	. 0.0	3	N.D.
27	Dieldrin	ua/L	US EPA 508-1995	0.0	3	N.D.

Note: mg/lit.: milligram per liter, N.D.- Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- > The report for publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.

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FORULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report

20.0

8.7

16.9

14.2

4.0

N.D.



REPORT NO. - 2163

15

16

17

18

19

20

Calcium (as Ca)

Chloride (as CI)

Sulphate (as SO₄)

Nitrate (as NO₃)

Phosphate (as P)

Magnesium (as Mg)

HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph: 0771 - 4027777 | Email: ultimatenviro@gmail.com

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Name & Address Of The	Customer	REPO	ORT NO	UES/TR/2	1-22/2	2163
TO,		LAB	REF NO	UES/21-22/W/3545		
HINDALCO INDUSTR	IES LIMITED,	DATE	OF SAMPLING	27/08/20:	7/08/2021	
GARE PALMA - IV/5,	MILUPARA	DATE	OF RECEIPT	29/08/2021		
U/G COAL MINE, VILL	AGE – MILUPARA,	DATE	OF REPORT	03/09/2021		
BLOCK-TAMNAR, DISTT RAIGARH (C	DATE	E OF ANALYSIS	START: 29/0	8/2021	END:02/09/2021	
		SAMPI	E DETAILS			
SAMPLE TYPE	GROUND WATER		ORDER /REFERENCE:			SRV/2122/0049, 24-JULY-2021
CUSTMER SAMPLE ID	SIDARPARA VILLAGE (DUG	WELL)	SAMPLE CONDITION AT RECEIPT		OK	
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SEALED	SAMPLE COLLEC	TED BY	СНЕМО	ST
SAMPLING PROCEDURE	A 2003; 50-B,1-39	QUANTITY RECEIVED		5 LTF	•	

	TEST REPORT							
Mar.		ACT OF		AS PER IS	AS PER IS 10500:2012			
SR. NO.	PARAMETER	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT	
1	Colour	Hazen	IS:3025:(Part-4)	5	15	<1		
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeable		
3	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeable		
4	pH	-	APHA 22 nd Ed.2012,4500-H ⁺ -B, 4-92	6.5-8.5	No Relaxation	7.48		
5	Turbidity	NTU	APHA 22 nd Ed.2012,2130-B,2-13	1	5	0.39		
6	Electrical Conductivity	µS/cm	IS 3025(part-14):1984, RA 2013	-	-	328.0		
7	Residual Chlorine	mg/Lit	APHA 22 nd Ed.2012,4500-Cl-G, 4 - 69	0.2	1	N.D.		
8	Total Solid	mg/Lit	APHA 22 nd Ed.2012,2540- B, 2-		-	201.1		
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	198.7		
10	Total Suspended Solids	mg/Lit	APHA 22 nd Ed.2012,2540- D, 2- 66	7		2.4		
11	Alkalinity Total (as CaCO ₃)	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	54.0		
12	Total Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,2340-C, 2- 44,45	200	600	86.0		
13	Calcium Hardness (as CaCO3)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca- B,3-67	-	-	50.0		
14	Magnesium Hardness (as CaCO3)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg- B,3-84	-	-	36.0		
	1	1	ADMA 2200 E4 2012 2500 Ca					

APHA 22nd Ed.2012,3500-Ca-B,3-67

APHA 22nd Ed.2012,3500-Mg-B, 3-84

APHA 22nd Ed.2012,4500-Cl-B, 4-72

4-190 APHA 22nd Ed.2012,4500-NO₃-B,4-122

APHA 22ndEd.2012,4500-P-C, 4-153

APHA 22nd Ed.2012,4500-SO4-E,

75

30

250

200

45

200

100

1000

400

NoRelaxati

on

mg/Lit

mg/Lit

mg/Lit

mg/Lit

mg/Lit

mg/Lit



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			TEST REPORT			
SR.		SELIO.		AS PER IS	10500:2012	
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
21	Sodium (as Na)	mg/Lit	APHA 22nd Ed.2012,3500-Na-B, 3-97	-	-	12.4
22	Potassium (as K)	mg/Lit	APHA 22 nd Ed.2012,3500-K-B, 3-87	-	-	0.8
23	Boron (as B)	mg/Lit	APHA 22 nd Ed.2012,4500-B-B, 4- 25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 nd Ed.2012,3111-B,3-18	0.3	NoRelaxati	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.11
26	Manganese (as Mn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.1	0.3	0.08
27	Lead (as Pb)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.01	NoRelaxati	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 nd Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 nd Ed.2012,3500-Cd, 3- 105	0.003	NoRelaxati on	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 nd Ed.2012,3112-B, 3-23	0.001	NoRelaxati on	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	NoRelaxati on	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22 nd Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxati on	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 nd Ed.2012,5540-C, 5-53	0.2	1.0	N.D.
37	Phenolic Compound (as C ₆ H ₅ OH)	mg/Lit	APHA 22 nd Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 nd Ed.2012,6440-6-93	0.0001	NoRelaxati on	N.D.
39	Mineral Oil	mg/Lit	IS 3025 (part-39) : 1991, RA 2003	0.5	No Relaxation	N.D.
40	Oil & Grease	mg/Lit	IS 3025 (Part 39):1991, RA 2003	- 100	-	N.D.
Micro	obiological Analysis					
1	Total Coliforms	MPN/ 100 ML	IS:1622:1981: RA:2019		detectable in ml sample	Absent
2	Faecal coliform	MPN/ 100ml	IS:1622:1981: RA:2019		detectable in ml sample	Absent
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019	Shall not be	detectable in nl sample	Absent
Pesti	icides					
1	p,p DDT	µg/L	US EPA 508-1995		1	N.D.
2	o.p DDT	µg/L	US EPA 508-1995		1	N.D.
3	p,pDDE	µg/L	US EPA 508-1995		1	N.D.
4	p,p DDD	µg/L	US EPA 508-1995		1	N.D.
5	O,p DDD	µg/L	US EPA 508-1995		1	N.D.
6	Gamma-HCH (Lindane)	µg/L	US EPA 508-1995	- wyman	2	N.D.



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REPORT NO. - 2163

			TEST REPORT			
				AS PER IS	10500:2012	
SR. NO.	PARAMETER	PARAMETER UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
7	Alpha-HCH	µg/L	US EPA 508-1995	0.	01	N.D.
8	Beta-HCH	µg/L	US EPA 508-1995	0.	04	N.D.
9	Delta HCH	µg/L	US EPA 508-1995	0.0	04	N.D.
10	Alpha-Endosulfan	µg/L	US EPA 508-1995	0.	.4	N.D.
11	Beta-Endosulfan	µg/L	US EPA 508-1995	0.	.4	N.D.
12	Endosulfansulphate	µg/L	US EPA 508-1995	0.	.4	N.D.
13	Monocrotophos	µg/L	US EPA 8141A-1994	1		N.D.
14	Ethion	µg/L	US EPA 8141A-1994	1	3	
15	Chloropyrifos	µg/L	US EPA 8141A-1994	30		N.D.
16	Phorate	µg/L	US EPA 8141A-1994		2	N.D.
17	Phoratesulphoxide	µg/L	US EPA 8141A-1994		-	N.D.
18	Phoratesulphone	µg/L	US EPA 8141A-1994			N.D.
19	2,4-D	µg/L	US EPA 515.1-1995	3	0	N.D.
20	Alachlor	µg/L	US EPA 508- 1995	2	0	N.D.
21	Atrazine	µg/L	US EPA 532-2000		2	N.D.
22	Methyl parathion	µg/L	US EPA 8141A-1994	0.	.3	N.D.
23	Methyl paraxone	µg/L	US EPA 8141A-1994			N.D.
24	Malathion	µg/L	US EPA 8141A-1994	19	90	N.D.
25	Malaoxon	µg/L	US EPA 8141A-1994		-	N.D.
26	Aldrin	µg/L	US EPA 508- 1995	0.	03	N.D.
27	Dieldrin	µg/L	US EPA 508-1995	0.	03	N.D.

Note: mg/lit.: milligram per liter, N.D. - Not Detected.

REMARKS: RESULTS ARE AS ABOVE Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

> Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.

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AUTHORIZED SIGNATORY

End of the test report



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Namo & Address Of The Cus	damer		REPORT NO	UES/TR/21-22/2129 UES/21-22/W/3473		
TO,			LAB REF NO			
HINDALCO INDUST	RIES LIMITED,	i i	DATE OF SAMPLING	27/08/2021		
GARE PALMA - IV/4	4, COAL MINE, VILLAC	BE-	DATE OF RECEIPT	29/08/2021		
BANKHETA, POST			DATE OF REPORT	03/09/2021 START:29/08/2021 END:02/09/2021		
DISTT RAIGARH		3	DATE OF ANALYSIS			
SAMPLE TYPE	GROUND WATER		ORDER /REFERENCE:	N/PO/SRV/2122/0045, DTD. 24-JULY-202		
SAMPLE TYPE	TYPE GROUND WATER			N/PO/SRV/2122/004	5, DTD. 24-JULY-2021	
	CUSTMER SAMPLE ID BELJOR VILLAGE (DUGWELL)					
CUSTMER SAMPLE ID	BELJOR VILLAGE (DUGWE	ELL)	SAMPLE CONDITION AT RECEIPT	OK		
CUSTMER SAMPLE ID	BELJOR VILLAGE (DUGWE 3 L X I NO. PVC CAN 1 L X I NO. PVC CAN 1 L X I NO. GLASS BOTTLE	SEALED		OK CHEMIST		

Report No.2129

			TEST REPORT			
		Alle		AS PER IS	10500:2012	RESULT
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	
1	Colour	Hazen	IS:3025:(Part-4)	5	15	<1
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeable
3	Taste	_	IS 3025(part-8)	Agreeable	Agreeable	Agreeable
4	рН	-	APHA 22 nd Ed.2012,4500-H+-B, 4-92	6.5-8.5	No Relaxation	7.48
5	Turbidity	NTU	APHA 22 nd Ed.2012,2130-B,2-13	1	5	0.48
6	Electrical Conductivity	μS/cm	IS 3025(part-14):1984, RA 2013	-	-	568.0
7	Residual Chlorine	mg/Lit	APHA 22 nd Ed.2012,4500-Cl-G, 4 - 69	0.2	1	N.D.
8	Total Solid	mg/Lit	APHA 22 nd Ed.2012,2540- B, 2- 64	-	-	348.8
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	344.2
10	Total Suspended Solids	mg/Lit	APHA 22 nd Ed.2012,2540- D, 2- 66	-	-	4.6
11	Alkalinity Total (as CaCO ₃)	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	168.0
12	Total Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,2340-C, 2- 44,45	200	600	188.0
13	Calcium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca-B, 3-67	-	-	108.0
14	Magnesium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	-	-	80.0
15	Calcium (as Ca)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca-B, 3-67	75	200	43.2
16	Magnesium (as Mg)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	30	100	19.4
17	Chloride (as CI)	mg/Lit	APHA 22 nd Ed.2012,4500-Cl-B, 4-72	250	1000	48.9
18	Sulphate (as SO ₄)	mg/Lit	APHA 22 nd Ed.2012,4500-SO ₄ -E, 4-190	200	400	28.6
19	Nitrate (as NO ₃)	mg/Lit	APHA 22 nd Ed.2012,4500-NO ₃ -B, 4-122	45	NoRelaxatio n	1.64



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Report	No	21	29

		TEST REPORT			
			AS PER IS		
PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P- C,4-153	-	-	N.D.
Sodium (as Na)	mg/Lit	APHA 22nd Ed.2012,3500-Na- B,3-97	÷	- 1	6.8
Potassium (as K)	mg/Lit	APHA 22 nd Ed.2012,3500-K-B, 3-87	-	I - I	1.20
Boron (as B)	mg/Lit	APHA 22 nd Ed.2012,4500-B-B,	0.5	1.0	N.D.
Iron (as Fe)	mg/Lit	APHA 22 nd Ed.2012,3111-B,3-18	0.3	NoRelaxatio n	N.D.
Fluoride (as F)	mg/Lit	APHA 22 nd Ed.2012,4500-F-B &D. 4-84 & 87	1	1.5	0.08
Manganese (as Mn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-	0.1	0.3	0.17
Lead (as Pb)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-	0.01	NoRelaxatio n	N.D.
Nickel (as Ni)	mg/Lit	APHA 22 nd Ed.2012,3500-Ni, 3- 108	0.02	No	N.D.
Zinc (as Zn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-	5	15	N.D.
Copper (as Cu)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-	0.05	1.5	N.D.
Cadmium (as Cd)	mg/Lit	APHA 22 nd Ed.2012,3500-Cd, 3-	0.003	NoRelaxatio	N.D.
Mercury (as Hg)	mg/Lit	APHA 22 nd Ed.2012,3112-B, 3-	0.001	NoRelaxatio	N.D.
Arsenic (as As)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-	0.01	0.05	N.D.
Selenium (as Se)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3- 38	0.01	NoRelaxatio n	N.D.
Chromium (as Cr)	mg/Lit	APHA 22 nd Ed.2012,3500-Cr-B,	0.05	NoRelaxatio	N.D.
Anionic Detergent	mg/Lit	APHA 22 nd Ed.2012,5540-C, 5-	0.2 '	1.0	N.D.
Phenolic Compound	mg/Lit	APHA 22 nd Ed.2012,5540-B & C,	0.001	0.002	N.D.
Poly-nuclear Aromatic	μg/Lit	APHA 22 nd Ed.2012,6440-6-93	0.0001	NoRelaxatio n	N.D.
Mineral Oil	mg/Lit	IS 3025 (part-39) : 1991, RA	0.5	No	N.D.
Oil & Grease	mg/Lit	IS 3025 (Part 39):1991, RA	-		N.D.
biological Analysis		.h. 77777	***************************************	<u></u>	
Total Coliforms	MPN/ 100 MI	IS:1622:1981: RA:2019			Absent
Faecal Coliform	MPN/	IS:1622:1981: RA:2019	Shall not be	detectable in	Absent
E. Coli	MPN/	IS:1622:1981;RA:2019	Shall not be	detectable in	Absent
cides	1001111		ally 100	ini sample	
p,p DDT	µg/L	US EPA 508-1995		1	N.D.
o.p DDT		US EPA 508-1995			N.D.
		US EPA 508-1995			N.D.
p,p DDD	µg/L	US EPA 508-1995	*********		N.D.
	Phosphate (as P) Sodium (as Na) Potassium (as K) Boron (as B) Iron (as Fe) Fluoride (as F) Manganese (as Mn) Lead (as Pb) Nickel (as Ni) Zinc (as Zn) Copper (as Cu) Cadmium (as Cd) Mercury (as Hg) Arsenic (as As) Selenium (as Cr) Anionic Detergent (as MBAS) Phenolic Compound (as C ₆ H ₅ OH) Poly-nuclear Aromatic Hydrocarbon (PAH) Mineral Oil Oil & Grease biological Analysis Total Coliform E. Coli cides p,p DDT o,p DDT p,pDDE	Phosphate (as P) mg/Lit Sodium (as Na) mg/Lit Potassium (as K) mg/Lit Boron (as B) mg/Lit Iron (as Fe) mg/Lit Fluoride (as F) mg/Lit Manganese (as Mn) mg/Lit Lead (as Pb) mg/Lit Nickel (as Ni) mg/Lit Zinc (as Zn) mg/Lit Copper (as Cu) mg/Lit Cadmium (as Cd) mg/Lit Mercury (as Hg) mg/Lit Arsenic (as As) mg/Lit Selenium (as Se) mg/Lit Chromium (as Cr) mg/Lit Anionic Detergent (as MBAS) mg/Lit Phenolic Compound (as C ₆ H ₅ OH) mg/Lit Poly-nuclear Aromatic Hydrocarbon (PAH) μg/Lit Mineral Oil mg/Lit Oil & Grease mg/Lit biological Analysis Total Coliforms MPN/ 100 ML	PARAMETER	PARAMETER UNIT METHOD OF TEST As PER IS Acceptable Limit Phosphate (as P) mg/Lit G.PHA 22nd Ed.2012,4500-P-C,4-153 - CA-153 - CA-154 - CA-154	PARAMETER



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Report No. 2129

			TEST REPORT			
SR.				AS PER IS	10500:2012	RESULT
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	
5	O,p DDD	µg/L	US EPA 508-1995		1	N.D.
6	Gamma-HCH (Lindane)	μg/L	US EPA 508-1995		2	N.D.
7	Alpha-HCH	µg/L	US EPA 508-1995	0.	.01	N.D.
8	Beta-HCH	μg/L	US EPA 508-1995	0.	.04	N.D.
9	Delta HCH	µg/L	US EPA 508-1995	0.	.04	N.D.
10	Alpha-Endosulfan	µg/L	US EPA 508-1995	0	.4	N.D.
11	Beta-Endosulfan	µg/L	US EPA 508-1995	0	.4	N.D.
12	Endosulfansulphate	µg/L	US EPA 508-1995	0	.4	N.D.
13	Monocrotophos	μg/L	US EPA 8141A-1994		1 1	
14	Ethion	μg/L	US EPA 8141A-1994		3	N.D.
15	Chloropyrifos	μg/L	US EPA 8141A-1994	3	30	N.D.
16	Phorate	µg/L	US EPA 8141A-1994		2	N.D.
17	Phoratesulphoxide	μg/L	US EPA 8141A-1994		-	N.D.
18	Phoratesulphone	µg/L	US EPA 8141A-1994		-	N.D.
19	2,4-D	µg/L	US EPA 515.1-1995	====3	30	N.D.
20	Alachlor	µg/L	US EPA 508- 1995	2	20	N.D.
21	Atrazine	µg/L	US EPA 532-2000		2	N.D.
22	Methyl parathion	µg/L	US EPA 8141A-1994	0	.3	N.D.
23	Methyl paraxone	μg/L	US EPA 8141A-1994		-	N.D.
24	Malathion	µg/L	US EPA 8141A-1994	1	90	N.D.
25	Malaoxon	µg/L	US EPA 8141A-1994		-	N.D.
26	Aldrin	µg/L	US EPA 508- 1995	0.	03	N.D.
27	Dieldrin	µg/L	US EPA 508-1995	0.	.03	N.D.

Note: mg/lit.: milligram per liter, N.D.- Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- > Thereportfor publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only.

PREPARED BY

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AUTHORIZED SIGNATORY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

----End of the test report----

Annexure - 3



Letter No.: HIL/EC/GP-IV/5 -Q1/2021/ (69

03 July, 2021

The DDGF (Central), Regional Office,

Ministry of Environment Forests & Climate Change (MoEF & CC) Regional Office, (West Central Zone) Ground Floor, East Wing New Secretary Building, Civil Line, Nagpur - 440001

Sub.: Compliance of condition no. viii of Environment Clearance Letter no. - J-11015/8/1998-IA. II (M) Dated: - 31st August 2000 for Under Ground Mining 1.0 Million Ton/Annum Production Capacity.

Ref.: Environment Clearance Letter no. - letter no. J-11015/8/1998-IA. II (M) Dated: - 31st August 2000.

Dear Sir,

With reference to above subject, we are submitting herewith the quarterly monitoring report of Ground Water Level (from April 2021 to June 2021) & GW Quality for the month of May 2021 - Pre -Monsoon period of Gare Palma IV/5 Coal Mines of Hindalco Industries Limited, Village - Milupara, Tehsil - Tamnar, District - Raigarh, Chhattisgarh.

We would like to inform you that automatic water level recorder installed at HIL Staff Quarter - Milupara is under maintenance due to some hardware related error, so we are submitting the manual ground water level monitoring result.

Thanking you,

Yours faithfully,

(Vice President - GP Mines)

For Hindalco Industries Limited

Encl: As above

CC: 1) Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas, Bhawan, Raipur, Chhattisgarh.

2) Regional Officer, Chhattisgarh Environment Conservation Board, TV tower Road, Raigarh (CG).

3) The Regional Director, Regional Directorate (Central), Bhopal Central Pollution Control Board (MoEF & CC, GOI), "Parivesh Bhawan" Paryavaran Parishar, E - 5, Arera Colony, Bhopal (MP), 462016

4) The Regional Director, Central Ground Water Board, North Central Chhattisgarh Region, 2nd Floor, LK Corporate and Logistic Park, Dumartarai, Raipur-492015

5) Member Secretary, Central Ground Water Authority, 18/11, Jamnagar House, Mansingh Road, New Delhi - 110011

6) The Integrated Regional Office, Ministry of Environment Forests & Climate Change (MoEF & CC) Aranya Bhawan, North Block, Sector - 19, Naya Raipur, Atal Nagar, Chhattisgarh, 492002

Hindalco Industries Limited



Letter No.: HIL/EC/GP-IV/5 -Q2/2021/343

11 October, 2021

The Integrated Regional Office,
Ministry of Environment Forests & Climate Change (MoEF & CC) Aranya Bhawan,
North Block, Sector – 19, Naya Raipur,
Atal Nagar, Chhattisgarh, 492002

Sub.: Compliance of condition no. viii of Environment Clearance Letter no. – J-11015/8/1998-IA. II (M)
Dated: - 31st August 2000 for Under Ground Mining 1.0 Million Ton/Annum Production Capacity.

Ref.: Environment Clearance Letter no. - letter no. J-11015/8/1998-IA. II (M) Dated: - 31st August 2000.

Dear Sir,

With reference to above subject, we are submitting herewith the quarterly monitoring report of Ground Water Level (from July 2021 to September 2021) & GW Quality for the month of August 2021 – Monsoon period of Gare Palma IV/5 Coal Mines of Hindalco Industries Limited, Village – Milupara, Tehsil – Tamnar, District – Raigarh, Chhattisgarh.

Thanking you,

Yours faithfully,

Govind Kumar

(Mine Agent - Gare Palma Mines)

Hindalco Industries Limited

Encl: As above

CC: 1) Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas, Bhawan, Raipur, Chhattisgarh.

- 2) Regional Officer, Chhattisgarh Environment Conservation Board, TV tower Road, Raigarh (CG).
- 3) The Regional Director, Regional Directorate (Central), Bhopal Central Pollution Control Board (MoEF & CC, GOI), "Parivesh Bhawan" Paryavaran Parishar, E 5, Arera Colony, Bhopal (MP), 462016
- 4) The Regional Director, Central Ground Water Board, North Central Chhattisgarh Region, 2nd Floor, LK Corporate and Logistic Park, Dumartarai, Raipur-492015
- 5) Member Secretary, Central Ground Water Authority, 18/11, Jamnagar House, Mansingh Road, New Delhi 110011





Annexure - 4



Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph: 0771 - 4027777 I Email: ultimatenviro@gmail.com

Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

Name & Address Of The Customer		REPORT NO	UES/TR/21-22/0048		
TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		LAB REF NO	UES/21-22/AAQM/044		
		DATE OF SAMPLING	01/04/2021 to 26,	/04/2021	
		DATE OF RECEIPT	02/04/2021 to 27,	/04/2021	
		DATE OF REPORT	03/05/2021		
		DATE OF ANALYSIS	START: 02/04/2021	END: 01/05/2021	
	SA	MPLE DETAILS			
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. & DATE	M/PO/SRV/2021/0044, DTD. 21-AUG-2020	•	
SAMPLING LOCATION	MAIN OFFICE AREA, MILUPAR	₹A.	dest militare in the street in the street		
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST		
SAMPLING PROCEDURE	AS PER METHOD REFERENCE				
SAMPLE QUANTITY/PACKING	FILTER PAPER (PMIO): 1X1 SOZ: 30MLX1 NO. PVC BOTTI RUBBER BLADDER: 1X1 NO.				

Test Method and NAAQM Standard for Ambient Air Quality Monitoring				
Parameter	Method Reference	NAAQM Standard		
Particulate Matter size less than 10 microns (PM10)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100		
Particulate Matter size less than 2.5 microns (PM2.5)	CPCBGuidelines VolI	60		
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80		
Nitrogen Dioxide (NO2)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80		
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0		
Mercury (Hg)	EPA Method IO-5			

TEST REPORT							
Date of Sampling	PM ₁₀ μg/m ³	PM _{2.5} μg/m ³	SO ₂ μg/m³	NO₂ µg/m³	CO* mg/m³	Hg ng/m³	
01.04.2021	40	28	12	24	1.0	N.D.	
05.04.2021	44	22	10	- 20	1.2	N.D.	
09.04.2021	42	18	08	24	1.0	N.D.	
12.04.2021	46	20	06	20	1.1	N.D.	
16.04.2021	42	22	12	26	0.8	N.D.	
19.04.2021	40	26	08	28	0.6	N.D.	
23.04.2021	44	22	12	22	0.8	N.D.	
26.04.2021	48	20	10	24	1.0	N.D.	

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report record of the selection of the customer. This is for information as the party has asked for above testing the customer.

End of the test report---

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY



Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph: 0771 - 4027777 | Email: ultimatenviro@gmail.com

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Name & Address Of The Custo	mer	REFORT NO UES/TR/21-2		22/0439	
TO,		LAB REF NO	UES/21-22/AAQM/0	539	
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAMPLING	03/05/2021 to 29	/05/2021	
		DATE OF RECEIPT	04/05/2021 to 30,	/05/2021	
		DATE OF REPORT	TE OF REPORT 03/06/2021		
		DATE OF ANALYSIS	DATE OF ANALYSIS START: 05/05/2021 END: 0.		
		SAMPLE DETAILS	Management of the second		
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. E	M/PO/SRV/2021/0044 DTD. 21-AUG-2020		
SAMPLING LOCATION	MAIN OFFICE AREA, MILUPAI	RA			
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST		
SAMPLING PROCEDURE	AS PER METHOD REFERENCE				
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM10): 1X1 SO2: 30MLX1 NO. PVC BOTT. RUBBER BLADDER: 1X1 NO.				

Parameter	Method Reference	NAAQM Standard	
Particulate Matter size less than 10 microns (PM ₁₀)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100	
Particulate Matter size less than 2.5 microns (PM2.5)	CPCB Guidelines VolI	60	
Sulphur Dioxide (SO2)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80	
Nitrogen Dioxide (NO2)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80	
Carbon Monoxide (CO)*	IS 5182 (Part 10):1999, RA 2003	4.0	
Mercury (Hg)	EPA Method IO-5		

TEST REPORT						
Date of Sampling	PM ₁₀ μg/m ³	PM _{2.5} μg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO* mg/m³	Hg ng/m ³
01.05.2021	32	20	08	18	1.0	N.D.
05.05.2021	30	18	12	20	0.8	N.D.
10.05.2021	44	28	14	18	-1.1	N.D.
14.05.2021	36	20	10	22	1.2	N.D.
17.05.2021	44	26	12	20	1.0	N.D.
21.05.2021	38	24	10	26	1.1	N.D.
24.05.2021	42	22	14	20	0.8	N.D.
28.05.2021	34	18	16	22	1.0	N.D.

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.
Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.
This is for information as the party has asked for above test(s) only.

PREPARED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS AUTHORIZED SIGNATORY

report.....



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	Name & Address Of The Customer TO.		UES/TR/21-22/088	,
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		LAB REF NO UES/21-22/AAQN		999
		DATE OF SAMPLING	03/06/2021 to 28/	06/2021
		DATE OF RECEIPT	The state of the s	
		DATE OF REPORT		
		DATE OF ANALYSIS	START: 05/06/2021	END: 02/07/2021
		SAMPLE DETAILS	**************************************	
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. &	M/PO/SRV/2021/0044, DTD. 21-AUG-2020	
SAMPLING LOCATION	MAIN OFFICE AREA, MILUPAN	RA.		
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST	
SAMPLING PROCEDURE	AS PER METHOD REFERENCE			
SAMPLE QUANTITY/PACKING	FILTER PAPER (PMIO): 1X1 SO2: 30MLX1 NO. PVC BOTTI RUBBER BLADDER: 1X1 NO.			

Test Method and NAAQM Standard for Ambient Air Quality Monitoring				
Parameter	Method Reference	NAAQM Standard		
Particulate Matter size less than 10 microns (PM ₁₀)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100		
Particulate Matter size less than 2.5 microns (PM _{2.5})	CPCB Guidelines VolI	60		
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80		
Nitrogen Dioxide (NO ₂)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80		
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0		
Mercury (Hg)	EPA Method IO-5			

TEST REPORT						
Date of Sampling	PM ₁₀ µg/m³	PM _{2.5} µg/m ³	SO ₂ µg/m³	NO ₂ μg/m³	CO* mg/m³	Hg ng/m ³
03.06.2021	30	18	06	16	1.1	N.D.
05.06.2021	28	16	10	18	0.9	N.D.
10.06.2021	40	26	12	16	1.0	N.D.
14.06.2021	34	18	08	20	1.1	N.D.
19.06.2021	42	24	10	18	0.8	N.D.
23.06.2021	36	22	08	24	1.0	N.D.
26.06.2021	40	20	12	22	0.9	N.D.
28.06.2021	32	16	14	20	1.1	N.D.

Terms & conditions
The report for publication, arbitration or as legal dispute is forbidden.
Test sample will be retained for 16 days after issue of test report mental and the sample will be retained for 15 days after issue of test of a CULTTO This is for information as the party has asked for above tested on CULTTO

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report.....



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Name & Address Of The Cust	TO,		UES/TR/21-22/143	0
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		TAB REF NO	UES/21-22/AAQM/2	031-2038
		DATE OF SAMPLING	01/07/2021 to 28	/07/2021
		DATE OF RECEIPT	02/07/2021 to 29	/07/2021
		DATE OF REPORT	02/08/2021	
		DATE OF ANALYSIS	START:02/07/2021	XND:31/07/2021
		SAMPLE DETAILS		
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. &	M/PO/SRV/2021/0044, DTD. 21-AUG-2020	,
SAMPLING LOCATION	MAIN OFFICE AREA, MILUPAP	ù.	1 2000 20 20 20 20 20 20 20 20 20 20 20 2	
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHIRMIST	
SAMPLING PROCEDURE	AS PER METHOD REPERANCE		-	
SAMPLE QUANTITY/PACKING	FILTER PAPER (PMIO): IXI SC2: 30MEXI NO. PVC NOTTI BURNNER BLADDER: IXI NO.	NO., FILTER PAPER (PMS E, NO2: 30MLK1 NO. PVC	2.5): IXI NO. C BOTTLE	

Test Method and NAAQM Standard for Ambient Air Quality Monitoring				
Parameter	Method Reference	NAAQM Standard		
Particulate Matter size less than 10 microns (PM ₁₀)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100		
Particulate Matter size less than 2.5 microns (PM2.5)	CPCB Guidelines VolI	60		
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80		
Nitrogen Dioxide (NO ₂)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80		
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0		
Mercury (Hg)	EPA Method IO-5	4.0		

/m³ µg	M _{2.5} /m ³	SO ₂ μg/m³	NO ₂ µg/m ³	CO*	Hg
		The state of the s		mg/m³	ng/m³
	10	08	18	0.8	N.D.
26	18	10	16	0.6	N.D.
38	20	08	the second section is not been also as the second	And the second s	N.D.
32	16	06		The state of the s	N.D.
10	18	10			N.D.
34	20	The second secon	The second secon	100000000000000000000000000000000000000	11700000000
		The second second	The second secon	The state of the s	N.D.
No.	and the latest and th				N.D.
	38 32 40 34 32 36	38 20 32 16 40 18 34 20 32 22 36 18	38 20 08 32 16 06 40 18 10 34 20 12 32 22 08	38 20 08 20 32 16 06 18 40 18 10 22 34 20 12 26 32 22 08 18 36 18 12 22	38 20 08 20 0.8 32 16 06 18 1.0 40 18 10 22 0.8 34 20 12 26 1.1 32 22 08 18 0.8 36 18 12 22 1.0

Terms & conditions

The report for publication, arbitration or as legal disputs is forbindent ROLY?

est sample will be retained for 15 days after losse of test report letters of the extended with sucto.

Not in for information as the party has asked for above more), and

(Rokers 02/02/2021

For ULTIMATE ENVIRORYTICAL SOLUTIO

AUTHORIZED SIGNATORY

-End of the test report.....



Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		REPORT NO	7		
		LAB REF NO	UES/21-22/AAQM/3482-3489		
		DATE OF SAMPLING	01/08/2021 to 27/	/08/2021	
		DATE OF RECEIPT	02/08/2021 to 28/08/2021		
		DATE OF REPORT	DATE OF REPORT 03/09/2021		
		DATE OF ANALYSIS	START:02/08/2021 END:02/09		
		SAMPLE DETAILS			
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. &	M/PO/SRV/2122/0049, DTD. 24-JULY-2021		
SAMPLING LOCATION	MAIN OFFICE AREA, MILUPAN	ZA.			
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST		
SAMPLING PROCEDURE	AS PER METHOD REFERENCE				
SAMPLE QUANTITY/PACKING	FILTER PAPER (PMIO): IXI NO., FILTER PAPER (PM2.5): IXI NO. SO2: JOHLKI NO. PVC BOTTLE, NO2: JOHLXI NO. PVC BOTTLE RUBBER BLADDER: IXI NO.				

Test Method and NAAQM Standard for Ambient Air Quality Monitoring				
Parameter	Method Reference	NAAQM Standard		
Particulate Matter size less than 10 microns (PM ₁₀)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100		
Particulate Matter size less than 2.5 microns (PM _{2.5})	CPCBGuidelines VolI	60		
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80		
Nitrogen Dioxide (NO ₂)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80		
Carbon Monoxide (CO)*	IS 5182 (Part 10):1999, RA 2003	4.0		
Mercury (Hg)	EPA Method IO-5	1.0		

TEST REPORT							
Date of Sampling	PM ₁₀ μg/m ³	PM _{2.5} μg/m ³	SO ₂ µg/m ³	NO ₂ μg/m³	CO* mg/m³	Hg ng/m³	
02.08.2021	36	22	06	16	0.6	N.D.	
06.08.2021	32	16	08	22	0.8	N.D.	
09.08.2021	40	20	10	18	0.5	N.D.	
13.08.2021	38	22	12	20	0.8	N.D.	
16.08.2021	46	28	14	26	0.6	N.D.	
20.08.2021	32	22	16	22	0.4	N.D.	
23.08.2021	44	24	12	18	0.8	N.D.	
27.08.2021	38	20	10	20	1.1	N.D.	

Terms & conditions

The report for publication, arbitration or as legal disprate is forbiddes

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with co This is for information as the party has asked for above heafel, code.

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WEAR RING OF SELECTION

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-End of the test report.....



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Name S. Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA - IV/5, MILUPARA U/G COAL MINE, VILLAGE - MILUPARA, BLOCK - TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAM DATE OF REC DATE OF REP	REPORT NO. LAB REF NO. DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS		UES/TR/21-22/2338 UES/21-22/AAQM/4485-4492 03/09/2021 to 27/09/2021 04/09/2021 to 28/09/2021 02/10/2021 START:04/09/2021 END:30/09/202		
DISTT KAIGARH (C.G	.) 496107	SAMPLE DETAI	LS		Ville		
MONITORING FOR	AMBIENT AIR QUAL	ITY MONITORING	CUSTOMER	REF. NO. & DATE		0/SRV/2122/0049, 0.:24-JULY-2021	
SAMPLING LOCATION	MAIN OFFICE AREA,	MAIN OFFICE AREA, MILUPARA					
DURATION OF SAMPLING 24 HOURS		SAMPLE COLL	SAMPLE COLLECTED BY LABORATORY CHEM		MIST		
SAMPLING PROCEDURE	AS PER METHOD REI	ERENCE		Milesus			
SAMPLE QUANTITY/PACKING		FILTER PAPER (PM ₁₀): 1X1 NO., FILTER PAPER (PM _{2.5}): 1X1 NO. SO ₂ : 30MLX1 NO. PVC BOTTLE, NO ₂ : 30MLX1 NO. PVC BOTTLE					

Test Method and NAAQM Standard for Ambient Air Quality Monitoring				
Parameter	Method Reference	NAAQM Standard		
Particulate Matter size less than 10 microns (PM10)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100		
Particulate Matter size less than 2.5 microns (PM2.5)	CPCB Guidelines VolI	60		
Sulphur Dioxide (SO ₂) IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI		80		
Nitrogen Dioxide (NO ₂)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80		
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0		
Mercury (Hg)	EPA Method IO-5			

TEST REPORT							
Date of Sampling	PM ₁₀ μg /m ³	PM _{2.5} μg/m ³	SO ₂ µg/m³	NO ₂ μg/m³	CO* mg/m³	Hg ng/m ³	
03.09.2021	44	20	10	20	0.5	N.D.	
06.09.2021	38	22	16	26	0.3	N.D.	
10.09.2021	42	28	10	22	0.4	N.D.	
13.09.2021	36	26	12	28	0.2	N.D.	
17.09.2021	32	24	10	22	0.6	N.D.	
20.09.2021	38	20	18	24	0.8	N.D.	
24.09.2021	44	22	08	18	0.5	N.D.	
27.09.2021	38	18	10	22	0.8	N.D.	

Terms & conditions

- The report for publication, arbitration or as legal dispute is forbidden.
- Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer

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For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

--- End of the test report----

AN ISO: 9001:2015 / ISO: 14001:2015 / ISO 45001:2018 CERTIFIED LABORATORY



Ring Road No.-2. Kabir Nagar, Raipur (C.G.) - 492099 Ph: 0771 - 4027777 | Email: ultimatenviro@gmail.com

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Name & Address Of The Castomer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		REPORT NO	UES/TR/21-22/004	/TR/21-22/0049		
		LAB REF NO UES/21-22/A		QM/045		
		DATE OF SAMPLING	01/04/2021 to 26/04/2021			
		DATE OF RECEIPT 02/04/2021 to 27/04		7/04/2021		
		DATE OF REPORT	03/05/2021			
		DATE OF ANALYSIS	START: 02/04/2021	END: 01/05/2021		
	SA	MPLE DETAILS				
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. &	M/PO/SRV/2021/0044, DTD. 21-AUG-2020			
SAMPLING LOCATION	STAFF QUARTER, MILUPARA					
DURATION OF SAMPLING	ON OF SAMPLING 24 HOURS SAMPLE		SAMPLE COLLECTED BY LABORATORY CHE			
SAMPLING PROCEDURE	AS PER METHOD REFERENCE					
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTT. RUBBER BLADDER: 1X1 NO.					

Test Method and NAAQM Standard for Ambient Air Quality Monitoring					
Parameter	Method Reference	NAAQM Standard			
Particulate Matter size less than 10 microns (PM ₁₀)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100			
Particulate Matter size less than 2.5 microns (PM _{2.5})	CPCBGuidelines VolI	60			
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80			
Nitrogen Dioxide (NO ₂)	IS 5182 (Part 6): 2006 & CPCBGuidelines VolI	80			
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0			
Mercury (Hg)	EPA Method IO-5				

TEST REPORT							
Date of Sampling	PM ₁₀ μg/m ³	PM _{2.5} μg/m ³	SO₂ μg/m³	NO₂ µg/m³	CO* mg/m³	Hg ng/m ³	
01.04.2021	38	26	10	20	1.2	N.D.	
05.04.2021	42	24	08	26	1.0	N.D.	
09.04.2021	46	20	12	24	0.8	N.D.	
12.04.2021	38	26	10	22	1.1	N.D.	
16.04.2021	42	20	14	28	1.6	N.D.	
19.04.2021	52	24	16	20	1.4	N.D.	
23.04.2021	48	28	10	26	1.0	N.D.	
26.04.2021	42	22	12	24	1.2	N.D.	

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be relatived for 15 days after issue of test report unle.

This is for information as the party has asked for above test(s) only.

ess otherwise agreed with customer.

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Name & Address Of The Custon	ner	REPORT NO	UES/TR/21-22/044	10	
то,		LAB REF NO	UES/21-22/AAQM/0	540	
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAMPLING	03/05/2021 to 29	0/05/2021	
		DATE OF RECEIPT	04/05/2021 to 30/05/2021 03/06/2021		
		DATE OF REPORT			
		DATE OF ANALYSIS	START: 05/05/2021 END: 02/06/20		
		SAMPLE DETAILS			
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. &	044,		
SAMPLING LOCATION	STAFF QUARTER, MILUPARA	***************************************			
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEM	IST	
SAMPLING PROCEDURE	AS PER METHOD REFERENCE		*		
SAMPLE QUANTITY/PACKING		FILTER PAPER (PM ₁₀): 1X1 NO., FILTER PAPER (PM _{0.5}): 1X1 NO. SO ₂ : 30MLX1 NO. PVC BOTTLE, NO ₂ : 30MLX1 NO. PVC BOTTLE DIPPER BEADER 1X1 NO.			

Parameter	Method Reference	NAAQM Standard
Particulate Matter size less than 10 microns (PM ₁₀)	1S 5182 (Part 23): 2006 & CPCB Guidelines VolI	100
Particulate Matter size less than 2.5 microns (PM _{2.5})	CPCBGuidelines VolI	60
Sulphur Dioxide (SOg)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80
Nitrogen Dioxide (NO ₂)	IS 5182 (Part 6): 2006 & CPCBGuidelines VolI	80
Carbon Monoxide (CO)*	IS 5182 (Part 10):1999, RA 2003	4.0
Mercury (Hg)	EPA Method IO-5	

TEST REPORT						
Date of Sampling	PM ₁₀ μg/m ³	PM _{2.5} μg/m ³	SO₂ μg/m³	NO₂ µg/m³	CO* mg/m³	Hg ng/m³
01.05.2021	34	22	10	20	1.0	N.D.
05.05.2021	30	26	08	22	0.6	N.D.
10.05.2021	36	20	10	26	0.8	N.D.
14.05.2021	38	24	12	24	1.0	N.D.
17.05.2021	42	28	08	26	1.1	N.D.
21.05.2021	36	20	10	28	1.2	N.D.
24.05.2021	40	24	12	18	0.8	N.D.
28.05.2021	38	22	14	22	1.0	N.D.

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) of the very large of the customer.

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Name & Address Of The Custon	ner	REPORT NO	UES/TR/21-22/088	18
то,		LAB REF NO	UES/21-22/AAQM/1	.000
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAMPLING	03/06/2021 to 28	3/06/2021
		DATE OF RECEIPT	DATE OF RECEIPT 04/06/2021 to 29/06/2021 DATE OF REPORT 03/07/2021	
		DATE OF REPORT		
		DATE OF ANALYSIS	START: 05/06/2021	END: 02/07/2021
		SAMPLE DETAILS		
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. 6 M/PO/SRV/2021/0044, DATE DTD. 21-AUG-2020		
SAMPLING LOCATION	STAFF QUARTER, MILUPARA			
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEM	IST
SAMPLING PROCEDURE	AS PER METHOD REFERENCE			
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTT RUBBER BLADDER: 1X1 NO.			

Test Method and NA	AQM Standard for Ambient Air Quality Monito	oring
Parameter	Method Reference	NAAQM Standard
Particulate Matter size less than 10 microns (PM ₁₀)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100
Particulate Matter size less than 2.5 microns (PM _{2.5})	CPCBGuidelines VolI	60
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80
Nitrogen Dioxide (NO2)	IS 5182 (Part 6): 2006 & CPCBGuidelines VolI	80
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0
Mercury (Hg)	EPA Method IO-5	

TEST REPORT						
Date of Sampling	PM ₁₀ μg/m ³	PM _{2.5} μg/m ³	SO₂ µg/m³	NO ₂ μg/m ³	CO* mg/m³	Hg ng/m³
03.06.2021	32	20	08	18	0.8	N.D.
05.06.2021	28	24	06	20	0.9	N.D.
10.06.2021	34	18	08	24	1.0	N.D.
14.06.2021	36	22	10	22	1.1	N.D.
19.06.2021	40	26	06	24	1.0	N.D.
23.06.2021	34	18	12	26	1.1	N.D.
26.06.2021	38	22	10	16	0.9	N.D.
28.06.2021	36	20	12	20	0.8	N.D.

Terms & conditions

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Test sample will be retained for 15 days after issue of test report lights plus.

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End of the test report.....



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Name & Address Of The Custa TO,	mov	REPORT NO	UES/TR/21-22/143	1431	
	PRIES LIMITED CARE	LAB REP NO	UES/21-22/AAGM/2039-2046		
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT. – RAIGARH (C.G.) 496107		DATE OF SAMPLING	01/07/2021 to 28	7.00	
		DATE OF RECEIPT	02/07/2021 to 29/07/2021 02/08/2021		
		DATE OF REPORT			
		DATE OF AMALYSIS	START: 02/07/2021	EMD: 31/07/2021	
		SAMPLE DETAILS			
HOWITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. 4 M/PO/SRV/2021/0044, DATE DTD, 21-ADG-2020			
SAMPLING LOCATION	STAFF QUARTER, MILUPARA		1		
DUNATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEM	TST	
SAMPLING PROCEDURE	AS PER METHOD REFERENCE				
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM ₁₀): 1X1 30 ₂ : 30MLXI NO. PVC BOTTI RUBBER BLADDER: 1X1 NO.	MO., FILTER PAPER (FM ₂ : ME, NO ₂ : 30MLXI NO. PVC	s): IXI NO. BOTTLE		

Parameter	Method Reference	NAAQM
Particulate Matter size less than 10 microns (PM:0)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	Standard 100
Particulate Matter size less than 2.5 microns (PM _{2.5})	CPCB Guidelines VolI	60
Sulphur Dioxide (SO ₂)	18 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80
Nitrogen Dioxide (NO ₂)	IS 5182 (Part 6): 2006 & CPCB Guidelines	80
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0
Mercury (Hg)	EPA Method IO-5	110

TEST REPORT						
Date of Sampling	PM ₁₀ μg/m ³	PM _{2.5} μg/m ³	SO ₂ μg/m ³	NO ₂ µg/m³	CO+ mg/m³	Hg ng/m³
01.07.2021	30	22	10	16	0.6	N.D.
06.07.2021	26	26	12	18	0.8	N.D.
09.07.2021	32	18	08	22	1.0	N.D.
12.07.2021	34	20	10	20	1.2	Property and the best design and the second
16.07.2021	36	18	08	26	0.8	N.D.
19.07.2021	30	22	10	20	The second second second	N.D.
26.07.2021	38	20	08	18	1.0	N.D.
28.07.2021	32	18	10	The second secon	0.8	N.D.
emarks: * Duration				22	0.6	N.D.



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Name & Address Of The Custon	nar	REPORT NO	UES/TR/21-22/2138		
то,		LAB REF NO	UES/21-22/AAQM/3	3490-3497	
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAMPLING	01/08/2021 to 27	/08/2021	
		DATE OF RECEIPT	02/08/2021 to 28	/08/2021	
		DATE OF REPORT	DATE OF REPORT 03/09/2021		
		DATE OF ANALYSIS	START: 02/08/2021	END:02/09/2021	
		SAMPLE DETAILS		William Karba	
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. &	M/FO/SRV/2122/0049, DTD. 24-JULY-2021		
SAMPLING LOCATION	STAFF QUARTER, MILUPARA				
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST		
SAMPLING PROCEDURE	AS PER METHOD REFERENCE				
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTT RUBBER BLADDER: 1X1 NO.				

Test Method and NAAQM Standard for Ambient Air Quality Monitoring				
Parameter	Method Reference	NAAQM Standard		
Particulate Matter size less than 10 microns (PM ₁₀)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100		
Particulate Matter size less than 2.5 microns (PM2.5)	CPCB Guidelines VolI	60		
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80		
Nitrogen Dioxide (NO ₂)	IS 5182 (Part 6): 2006 & CPCBGuidelines VolI	80		
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0		
Mercury (Hg)	EPA Method IO-5			

TEST REPORT						
Date of Sampling	PM ₁₀ μg/m ³	PM _{2.5} μg/m ³	SO ₂ μg/m ³	NO ₂ μg/m ³	CO* mg/m³	Hg ng/m³
02.08.2021	36	20	10	26	0.8	N.D.
06.08.2021	32	24	08	18	0.6	N.D.
09.08.2021	30	20	06	20	0.8	N.D.
13.08.2021	34	26	12	22	0.5	N.D.
16.08.2021	48	22	16	26	0.8	N.D.
20.08.2021	36	28	12	20	1.0	N.D.
23.08.2021	42	20	14	26	0.8	N.D.
27.08.2021	34	26	10	28	1.1	N.D.

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.
Test sample will be retained for 15 days after issue of test report unless of
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Name & Address Of The Customer	то,		LAB REF NO. DATE OF SAMPLING DATE OF RECEIPT		UES/TR/21-22/2339 UES/21-22/AAQM/4493-4500		
HINDALCO INDUSTRIES LIMITED, GARE PALMA - IV/5, MILUPARA U/G COAL MINE, VILLAGE - MILUPARA, BLOCK – TAMNAR, DISTT RAIGARH (C.G.) 496107						27/09/2021	
		DATE OF I			04/09/2021 to 28/09/2021		
		DATE OF 1			02/10/2021		
		DATE OF ANALYSIS		START: 04/09/2021		END: 30/09/2021	
		SAMPLE DETA	ILS	1 25			
MONITORING FOR	AMBIENT AIR QUALIT	TY MONITORING	CUSTOMER RE	F. NO.	& DATE	M/PO/SRV/2122/0049, DTD.:24-JULY-2021	
SAMPLING LOCATION	STAFF QUARTAR, MAI	LUPARA	Accommendation		THE PROPERTY OF THE PARTY OF TH		
DURATION OF SAMPLING	24 HOURS	SAMPLE CO	DLLECTED BY		LABORATORY	CHEMIST	
SAMPLING PROCEDURE	AS PER METHOD REFE	ERENCE		V100 1000000000000000000000000000000000	111110		
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM ₁₀): 1X1 NO., FILTER PAPER (PM _{2.5}): 1X1 NO. SO ₂ : 30MLX1 NO. PVC BOTTLE, NO ₂ : 30MLX1 NO. PVC BOTTLE RUBBER BLADDER: 1X1 NO.						

Parameter	Method Reference	NAAQM Standard
Particulate Matter size less than 10 microns (PM ₁₀)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100
Particulate Matter size less than 2.5 microns (PM2.5)	CPCB Guidelines VolI	60
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80
Nitrogen Dioxide (NO2)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0
Mercury (Hg)	EPA Method IO-5	

TEST REPORT							
Date of Sampling	PM ₁₀ μg /m ³	PM _{2.5} μg/m ³	SO ₂ µg/m³	NO₂ µg/m³	CO* mg/m³	Hg ng/m³	
03.09.2021	40	26	10	20	0.7	N.D.	
06.09.2021	46	20	12	24	0.3	N.D.	
10.09.2021	40	24	10	26	0.8	N.D.	
13.09.2021	36	26	12	20	0.2	N.D.	
17.09.2021	38	22	08	28	0.6	N.D.	
20.09.2021	42	28	12	22	0.2	N.D.	
24.09.2021	44	22	08	20	0.5	N.D.	
27.09.2021	48	24	10	22	0.4	N.D.	

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden

Test sample will be retained for 15 days after issue of test reporting behavior agreed with customer.

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AUTHORIZED SIGNATORY

-End of the test report-



HDD-272, Phase III - Near JP Chowk

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Name & Address Of The Custo	mor	REPORT NO	UES/TR/21-22/005	0		
TO,		LAB REF NO	UES/21-22/AAQM/0	ES/21-22/AAQM/046		
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAMPLING	01/04/2021 to 26	26/04/2021		
		DATE OF RECEIPT	r 02/04/2021 to 27/04/202			
		DATE OF REPORT	03/05/2021			
		DATE OF ANALYSIS	START: 02/04/2021	END: 01/05/2021		
	S2	MPLE DETAILS				
MONITORING FOR	AMBIENT AIR QUALITY CUSTOMER REF. NO. M/PO/SRV/2021/0044, MONITORING & DATE DTD. 21-AUG-2020					
SAMPLING LOCATION	HIL COLONY, KONDKEL	4	***************************************			
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST			
SAMPLING PROCEDURE	AS PER METHOD REFERENCE	***************************************		***************************************		
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM ₁₀): 1X1 : SO ₂ : 30MLX1 NO. PVC BOTTL RUBBER BLADDER: 1X1 NO.					

Parameter	Method Reference	NAAQM Standard	
Particulate Matter size less than 10 microns (PM10)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100	
Particulate Matter size less than 2.5 microns (PM2.5)	CPCBGuidelines VolI	60	
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80	
Nitrogen Dioxide (NO2)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80	
Carbon Monoxide (CO) *	IS 5182(Part 10):1999, RA 2003	4.0	
Mercury (Hg)	EPA Method IO-5		

TEST REPORT						
Date of Sampling	PM ₁₀ μg/m³	PM _{2.5} μg/m ³	SO ₂ μg/m³	NO ₂ μg/m³	CO* mg/m³	Hg ng/m³
01.04.2021	42	22	10	20	1.2	N.D.
05.04.2021	40	24	16	28	1.0	N.D.
09.04.2021	46	28	12	22	1.6	N.D.
12.04.2021	44	20	18	24	1.2	N.D.
16.04.2021	40	26	12	28	1.0	N.D.
19.04.2021	48	22	10	22	0.8	N.D.
23.04.2021	44	20	12	26	1.2	N.D.
26.04.2021	42	24	16	28	1.0	N.D.

Terms & conditions

The report for publication, erbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report glass after.

This is for information as the party has asked for above testing will be a state of the condition.

PREPARED BY End of the test report----

For ULTIMATE ENVIROLYTICAL SOLUTIONS AUTHORIZED SIGNATORY



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Name & Address Of The Custor	tree?	REPORT NO	UES/TR/21-22/0441 UES/21-22/AAQM/0541		
то,		LAB REF NO			
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAMPLING	03/05/2021 to 29	/05/2021	
		DATE OF RECEIPT	04/05/2021 to 30/05/2021		
		DATE OF REPORT	03/06/2021		
		DATE OF ANALYSIS	START: 05/05/2021	END: 02/06/2021	
		SAMPLE DETAILS			
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO.	M/PO/SRV/2021/0044 DTD. 21-AUG-2020	,	
SAMPLING LOCATION	HIL COLONY, KONDKEL		*		
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST		
SAMPLING PROCEDURE	AS PER METHOD REFERENCE				
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM;0): 1X1 SO2: 30MLX1 NO. PVC BOTT RUBBER BLADDER: 1X1 NO.				

Parameter	Method Reference	NAAQM Standard	
Particulate Matter size less than 10 microns (PM ₁₀)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100	
Particulate Matter size less than 2.5 microns (PM2.5)	CPCB Guidelines VolI	60	
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80	
Nitrogen Dioxide (NOc)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80	
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0	
Mercury (Hg)	EPA Method IO-5		

TEST REPORT							
Date of Sampling	PM ₁₀ µg/m³	PM _{2.5} μg/m ³	SO₂ µg/m³	NO ₂ µg/m³	CO* mg/m³	Hg ng/m³	
01.05.2021	40	24	10	20	0.6	N.D.	
05.05.2021	38	20	12	22	0.8	N.D.	
10.05.2021	42	26	08	26	1.1	N.D.	
14.05.2021	34	28	10	20	1.2	N.D.	
17.05.2021	40	20	08	22	0.8	N.D.	
21.05.2021	4.4	26	12	28	1.0	N.D.	
24.05.2021	42	28	16	22	0.6	N.D.	
28.05.2021	32	18	10	24	1.0	N.D.	

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unles
This is for information as the party has asked for above testing upon Y

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End of the test report.....

AN ISO: 9001:2015 / ISO: 14001:2015 / ISO 45001:2018 CERTIFIED LABORATORY



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Name & Address Of The Guston	tier	REPORT NO	UES/TR/21-22/088	/21-22/0889		
то,		LAB REF NO	UES/21-22/AAQM/1	001 -		
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAMPLING	03/06/2021 to 28	/06/2021		
		DATE OF RECEIPT	04/06/2021 to 29	/06/2021		
		DATE OF REPORT	03/07/2021			
		DATE OF ANALYSIS	START: 05/06/2021	END: 02/07/2021		
		SAMPLE DETAILS				
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO.	M/PO/SRV/2021/0044, DTD. 21-AUG-2020			
SAMPLING LOCATION	HIL COLONY, KONDKEL					
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST			
SAMPLING PROCEDURE	AS PER METHOD REFERENCE	- Indian and the second				
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTT RUBBER BLADDER: 1X1 NO.					

Parameter	Method Reference	NAAQM Standard	
Particulate Matter size less than 10 microns (PM ₁₀)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100	
Particulate Matter size less than 2.5 microns (PM _{2.5})	CPCB Guidelines VolI	60	
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80	
Nitrogen Dioxide (NO-)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80	
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0	
Mercury (Hg)	EPA Method IO-5		

TEST REPORT							
Date of Sampling	PM ₁₀ μg/m ³	PM _{2.5} μg/m ³	SO ₂ µg/m³	NO ₂ µg/m³	CO*	Hg ng/m³	
03.06.2021	38	22	08	18	0.8	N.D.	
05.06.2021	36	18	10	20	1.0	N.D.	
10.06.2021	40	24	12	24	1.0	N.D.	
14.06.2021	32	26	08	18	1.1	N.D.	
19.06.2021	38	18	10	20	0.9	N.D.	
23.06.2021	42	24	14	26	1.1	N.D.	
26.06.2021	40	26	12	20	0.8	N.D.	
28.06.2021	34	16	08	22	1.1	N.D.	

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report university.

This is for information as the party has asked for above tests a light of the conditions.

Makur 03/07/2021

For ULTIMATE ENVIROLYTICAL SOLUTIONS AUTHORIZED SIGNATORY

End of the test report.....



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Name & Address Of The Custo	mer	REPORT NO	UES/TR/21-22/143	UES/TR/21-22/1432		
TO,		LAB REF NO	UES/21-22/AAQM/2047-2054			
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAMPLING	01/07/2021 to 28	/07/2021		
		DATE OF RECEIPT 02/07/2021 to 29/07/2		/07/2021		
		DATE OF REPORT	02/08/2021			
		DATE OF ANALYSIS	START: 02/07/2021	END:31/07/2021		
		SAMPLE DETAILS		THE PERSON NAMED IN		
MOWITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. M/FO/SRV/2021/0044, 6 DATE DTD. 21-AUG-2020				
SAMPLING LOCATION	HIL COLONY, MONDREL	1	D1D: 21-800-2020			
DURATION OF SAMPLING	24 NOURS	SAMPLE COLLECTED BY	LABORATORY CHAMIST			
SAMPLING PROCEDURE	AS PER METHOD REFERENCE	177				
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM;s): 1XI SO;: 30HLX1 NO. PVC BOTT! RUBBER BLADDER: 1XI NO.	NO., FILTUR PAPER (PA LE, NO: 30MLX1 NO. PY	Mr.): 1X1 NO. NC BOTTLE	11		

Parameter	AQM Standard for Ambient Air Quality Mo	NAAQM	
B		Standard	
Particulate Matter size less than 10 microns (PM ₁₀)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100	
Particulate Matter size less than 2.5 microns (PM _{2.5})	CPCB Guidelines VolI	60	
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2); 2001, RA 2006 & CPCB Guidelines Vol1	80	
Nitrogen Dioxide (NO ₂)	IS 5192 (Part 6): 2006 & CPCB Guidelines VolI	80	
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0	
Mercury (Hg)	EPA Method IO-5		

TEST REPORT							
Date of Sampling	PM ₁₀ μg/m³	PM _{2.5} μg/m ³	50 ₂ μg/m ³	NO ₂ μg/m ³	CO+ mg/m³	Hg ng/m³	
01.07.2021	32	26	10	12	0.8	N.D.	
06.07.2021	30	20	12	24	1.0	N.D.	
09.07.2021	32	28	10	22	0.8	N.D.	
12.07.2021	34	20	06	16	1.1	N.D.	
16,07.2021	30	22	08	28	0.8	N.D.	
19.07.2021	38	20	10	20	1.2	The state of the s	
26.07.2021	32	22	16	22	0.6	N.D.	
28.07,2021	36	18	12	24	1.0	N.D.	

Terms & conditions

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Test excepts will be retained for 15 days effer issue of test report units of the arms agreed with customer. This is for information as the surfur has according above testing also in the customer.

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-End of the test report.....



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Name & Address Of The Custor	ner	REPORT NO	UES/TR/21-22/213	/21-22/2139	
то,		LAB REF NO	UES/21-22/AAQM/3	498-3505	
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAMPLING	01/08/2021 to 27	/08/2021	
		DATE OF RECEIPT	02/08/2021 to 28	/08/2021	
		DATE OF REPORT	03/09/2021		
		DATE OF ANALYSIS	START: 02/08/2021	END: 02/09/2021	
		SAMPLE DETAILS			
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	ALITY CUSTOMER REF. NO. M/PO/SRV/2122/0049, DATE DTD. 24-JULY-2021			
SAMPLING LOCATION	HIL COLONY, KONDKEL	*			
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST		
SAMPLING PROCEDURE	AS PER METHOD REFERENCE				
SAMPLE QUANTITY/PACKING		FILTER PAPER (PM ₁₀): 1X1 NO., FILTER PAPER (PM _{2.5}): 1X1 NO. SO ₂ : 30MLX1 NO. PVC BOTTLE, NO ₂ : 30MLX1 NO. PVC BOTTLE			

Test Method and NAAQM Standard for Ambient Air Quality Monitoring				
Parameter	Method Reference	NAAQM Standard		
Particulate Matter size less than 10 microns (PM ₁₀)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100		
Particulate Matter size less than 2.5 microns (PM2.5)	CPCBGuidelines VolI	60		
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80		
Nitrogen Dioxide (NO2)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80		
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0		
Mercury (Hg)	EPA Method IO-5			

TEST REPORT							
Date of Sampling	PM ₁₀ μg/m ³	PM _{2.5} μg/m ³	SO ₂ μg/m³	NO ₂ μg/m ³	CO* mg/m³	Hg ng/m³	
02.08.2021	44	24	12	24	0.8	N.D.	
06.08.2021	36	26	10	22	0.6	N.D.	
09.08.2021	40	20	08	28	1.0	N.D.	
13.08.2021	32	22	14	18	1.1	N.D.	
16.08.2021	48	24	08	24	0.5	N.D.	
20.08.2021	40	28	10	22	0.8	N.D.	
23.08.2021	46	22	16	20	0.6	N.D.	
27.08.2021	34	20	10	24	1.1	N.D.	

Terms & conditions

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Test sample will be retained for 15 days after issue of test report unless otherwise agreed with exchange.

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-----End of the test report.....



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Name & Address Of The Customer		REPORT NO.		UES/TR/21-22/2340		
то,		LAB REF NO.		UES/21-22/AAQM/4501-4508		
HINDALCO INDUSTRIES LIMITED, GARE PALMA - IV/5, MILUPARA U/G COAL MINE, VILLAGE - MILUPARA, BLOCK - TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAMPI	ING	03/09/2021 to	27/09/2021	
		DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS		04/09/2021 to 28/09/2021		
				02/10/2021		
				START: 04/09/2021	END:30/09/2021	
		SAMPLE DETAIL	S			
MONITORING FOR	AMBIENT AIR QUALITY MONITORING		CUSTOME	ER REF. NO. &	M/PO/SRV/2122/0049, DTD.:24-JULY-2021	
SAMPLING LOCATION	HIL COLONY, KONDE	L	- MATES (1010)			
DURATION OF SAMPLING	SAMPLE COLLEC	SAMPLE COLLECTED BY		IST		
SAMPLING PROCEDURE	AS PER METHOD REF	ERENCE		water and the same		
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM ₂₀): 1X1 NO., FILTER PAPER (PM _{2.5}): 1X1 NO. SO ₂ : 30MLX1 NO. PVC BOTTLE, NO ₂ : 30MLX1 NO. PVC BOTTLE RUBBER BLADDER: 1X1 NO.					

Parameter	Method Reference	NAAQM Standard
Particulate Matter size less than 10 microns (PM10)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100
Particulate Matter size less than 2.5 microns (PM _{2.5})	CPCB Guidelines VolI	60
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80
Nitrogen Dioxide (NO2)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0
Mercury (Hg)	EPA Method IO-5	

TEST REPORT							
Date of Sampling	РМ ₁₀ µg /m³	PM _{2.5} μg/m ³	SO ₂ µg/m³	NO ₂ µg/m³	CO* mg/m³	Hg ng/m ³	
03.09.2021	44	30	08	24	0.7	N.D.	
06.09.2021	48	22	16	22	0.5	N.D.	
10.09.2021	42	38	08	20	0.4	N.D.	
13.09.2021	46	26	12	28	0.8	N.D.	
17.09.2021	42	24	06	26	0.2	N.D.	
20.09.2021	48	30	18	20	0.6	N.D.	
24.09.2021	44	32	12	18	0.5	N.D.	
27.09.2021	48	28	10	28	0.7	N.D.	

Terms & conditions

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Test sample will be retained for 15 days after issue of test report with a process greed with custom

This is for information as the party has asked for above test

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---End of the test report----

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Name & Address Of The Custon	ner	REPORT NO	UES/TR/21-22/005	2/0051	
то,		LAB REF NO	UES/21-22/AAQM/0	047	
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAMPLING	01/04/2021 to 26	5/04/2021	
		DATE OF RECEIPT	02/04/2021 to 27	7/04/2021	
		DATE OF REPORT	03/05/2021		
		DATE OF ANALYSIS	START: 02/04/2021	END: 01/05/2021	
	SAI	MPLE DETAILS		nfo	
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. &	M/PO/SRV/2021/0044, DTD. 21-AUG-2020		
SAMPLING LOCATION	ETP AREA , KONDKEL	/ ////////////////////////////////////	Accompany of the second		
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST		
SAMPLING PROCEDURE	AS PER METHOD REFERENCE		A.E		
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM ₁₀): 1X1 NO., FILTER PAPER (PM _{2.5}): 1X1 NO. SO ₂ : 30MLX1 NO. FVC BOTTLE, NO ₂ : 30MLX1 NO. PVC BOTTLE RUBBER BLADDER: 1X1 NO.				

Test Method and NAAQM Standard for Ambient Air Quality Monitoring				
Parameter	Method Reference	NAAQM Standard		
Particulate Matter size less than 10 microns (PM10)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100		
Particulate Matter size less than 2.5 microns (PM _{2.5})	CPCBGuidelines VolI	60		
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80		
Nitrogen Dioxide (NO ₂)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80		
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0		
Mercury (Hg)	EPA Method IO-5			

TEST REPORT							
Date of Sampling	PM ₁₀ μg/m ³	PM _{2.5} μg/m ³	SO₂ μg/m³	NO ₂ μg/m ³	CO* mg/m³	Hg ng/m³	
01.04.2021	46	20	08	28	1.2	N.D.	
05.04.2021	44	26	12	. 26	1.0	N.D.	
09.04.2021	50	20	10	20	0.6	N.D.	
12.04.2021	42	22	16	24	0.8	N.D.	
16.04.2021	46	18	12	22	1.0	N.D.	
19.04.2021	48	24	14	28	1.4	N.D.	
23.04.2021	42	20	10	20	1.2	N.D.	
26.04.2021	44	22	16	26	1.0	N.D.	

Terms & conditions
The report for publicate
Test sample will be ret.
This is for information

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Name & Address Of The Custon	mer*	REPORT NO	UES/TR/21-22/04	R/21-22/0442		
то,		LAB REF NO	UES/21-22/AAQM/0	542		
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL		DATE OF SAMPLING	03/05/2021 to 29	9/05/2021		
		DATE OF RECEIPT	04/05/2021 to 30/05/2021			
MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF REPORT	03/06/2021			
		DATE OF ANALYSIS	OF ANALYSIS START: 05/05/2021 END: 0.			
		SAMPLE DETAILS				
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. &	M/PO/SRV/2021/004 DTD. 21-AUG-2020	4,		
SAMPLING LOCATION	ETP AREA , KONDKEL					
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIS:	T		
SAMPLING PROCEDURE	AS PER METHOD REFERENCE					
SAMPLE FILTER PAPER (FM ₁₀): 1X1 NO., FILTER PAPER (FM _{2.5}): 1X1 NO. SO: SOULXI NO. FVC BOTTLE, NO ₂ : 30MLXI NO. FVC BOTTLE RUBER BLADDER: 1X1 NO.						

Parameter	Method Reference	NAAQM Standard	
Particulate Matter size less than 10 microns (PM ₁₀)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100	
Particulate Matter size less than 2.5 microns (PM2.5)	CPCB Guidelines VolI	60	
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80	
Nitrogen Dioxide (NO2)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80	
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0	
Mercury (Hg)	EPA Method IO-5		

TEST REPORT						
Date of Sampling	PM ₁₀ µg/m ³	PM _{2.5} μg/m ³	SO₂ μg/m³	NO ₂ µg/m³	CO* mg/m³	Hg ng/m ³
01.05.2021	42	28	10	2.4	1.1	N.D.
05.05.2021	40	22	08	. 26	1.2	N.D.
10.05.2021	44	26	12	20	.1.0	N.D.
14.05.2021	38	28	16	22	0.6	N.D.
17.05.2021	46	22	10	24	0.8	N.D.
21.05.2021	36	20	18	20	1,2	N.D.
24.05.2021	42	22	12	26	1.1	N.D.
28.05.2021	48	26	10	24	1.0	N.D.

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only

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Name & Address & The Custon	mor	REPORT NO	UES/TR/21-22/089	/0890	
TO,		LAB REF NO	UES/21-22/AAQM/1002		
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAMPLING	03/06/2021 to 28	3/06/2021	
		DATE OF RECEIPT	04/06/2021 to 29	9/06/2021	
		DATE OF REPORT	03/07/2021		
		DATE OF ANALYSIS	START: 05/06/2021 END: 02/07/		
***************************************		SAMPLE DETAILS	de la constantina de		
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. &	M/PO/SRV/2021/0044, DTD. 21-AUG-2020		
SAMPLING LOCATION	ETP AREA , KONDKEL				
DURATION OF SAMPLING 24 HOURS		SAMPLE COLLECTED BY	LABORATORY CHEMIST		
SAMPLING PROCEDURE	AS PER METHOD REFERENCE		1	-	
SAMPLE QUANTITY/PACKING		FILTER PAPER (PM_{10}) : $1X1$ NO., FILTER PAPER $(PM_{2,0})$: $1X1$ NO. SO_2 : $3OMIXI$ NO. PVC BOTTLE, NO $_2$: $3OMIXI$ NO. PVC BOTTLE HIBBER FLADRER: $1X1$ NO.			

Parameter	Method Reference	NAAQM Standard	
Particulate Matter size less than 10 microns (PM10)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100	
Particulate Matter size less than 2.5 microns (PM _{2.5})	CPCB Guidelines VolI	60	
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80	
Nitrogen Dioxide (NO ₂)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80	
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0	
Mercury (Hg)	EPA Method IO-5		

TEST REPORT						
Date of Sampling	PM ₁₀ μg/m ³	PM _{2.5} µg/m ³	SO₂ µg/m³	NO ₂ μg/m ³	CO* mg/m³	Hg ng/m ³
03.06.2021	40	26	08	22	1.0	N.D.
05.06.2021	38	20	10	24	1.1	N.D.
10.06.2021	40	24	08	18	0.8	N.D.
14.06.2021	34	26	14	20	0.9	N.D.
19.06.2021	44	20	12	24	1.0	N.D.
23.06.2021	34	18	16	18	1.1	N.D.
26.06.2021	40	20	10	24	1.0	N.D.
28.06.2021	4.6	24	08	22	0.8	N.D.

Terms & conditions
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-End of the test report.....

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HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph: 0771 - 4027777 I Email: ultimatenviro@gmail.com

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Name & Address Of The Custe TO.	wer	REPORT NO	UES/TR/21-22/14	1433	
	TRIES LIMITED CARE	LAB REF NO	UES/21-22/AACM/2055-2062		
HINDALCO INDUSTRIES LIMITED, GARE PALMA - IV/5, MILUPARA U/G COAL MINE, VILLAGE - MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAMPLING	01/07/2021 to 2	8/07/2021	
		DATE OF RECEIPT	02/07/2021 to 25	9/07/2021	
		DATE OF REPORT	02/08/2021		
		DATE OF ANALYSIS	START: 02/07/2021 END: 31/07,		
		SAMPLE DETAILS	154FE-1405-190		
MONITORING FOR	AMBIENT AIR QUALITY MONITCRING	CUSTOMER REF. NO. 6	M/PO/ERV/2021/0044, DTD. 21-AUG-2020		
SAMPLING LOCATION	ETP ARKA , KONDREL	III III III III III III III III III II	1,1111		
DURATION OF SAMPLING 24 MOURS		SAMPLE COLLECTED BY	LABORATORY CHEMIST		
SAMPLING PROCEDURE	AS PER METROD REFERENCE			100	
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM;): 1X1 SO: 30MLX1 NO. PVC BOTTS SUBBER BLADDER: 1X1 NO.	BO., PILTER PAPER (PM; E, BO; 30HLX1 BO. PVC	J: IXI NO. BOTTLE		

Test Method and NAAQM Standard for Ambient Air Quality Monitoring				
Parameter	Method Reference	NAAQM Standard		
Particulate Matter size less than 10 microns (PM ₁₀)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolT			
Particulate Matter size less than 2.5 microns (PM2.5)	CPCB Guidelines VolI	60		
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80		
Nitrogen Dioxide (NO ₂)	IS 5182 (Part 6): 2006 & CPCB Guidelines Vol1	80		
Carbon Monoxide (CO)* Mercury (Hg)	IS 5182(Part 10):1999, RA 2003 EPA Method IO-5	4,0		

TEST REPORT						
Date of Sampling	PM ₁₀ μg/m ³	PM _{2.5} µg/m ³	50 ₂ μg/m ³	NO ₂ µg/m ³	CO* mg/m³	Hg ng/m ³
01.07.2021	36	20	1.0	20	1.1	N.D.
06.07.2021	32	18	12	18	1.0	N.D.
09.07.2021	42	22	08	16	0.6	THE RESERVE OF THE PARTY OF THE
12.07.2021	38	20	12	22	0.8	N.D.
16.07.2021	42	22	10			N.D.
19.07.2021	36		1.0	28	1.1	N.D.
26.07.2021		20	14	20	1.0	N.D.
the second secon	38	22	08	26	1.2	N.D.
28.07.2021	42	26	0.6	20	0.8	N.D.



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Name & Address Of The Custon	mer	REPORT NO	UES/TR/21-22/214	10	
TO,		LAB REF NO	UES/21-22/AAQM/3506-3513		
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAMPLING	01/08/2021 to 27	7/08/2021	
		DATE OF RECEIPT	02/08/2021 to 28	3/08/2021	
		DATE OF REPORT	03/09/2021		
		DATE OF ANALYSIS	START:02/08/2021 END:02/09/2		
	and the second second	SAMPLE DETAILS		3.7 m 18 m 18 m	
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. &	M/PO/SRV/2122/0049, DTD. 24-JULY-2021		
SAMPLING LOCATION	ETP AREA , KONDKEL				
DURATION OF SAMPLING 24 HOURS		SAMPLE COLLECTED BY	LABORATORY CHEMIST		
SAMPLING PROCEDURE	AS PER METHOD REFERENCE		1		
SAMPLE QUANTITY/PACKING		FILTER PAPER (PM ₁₀): IXI NO., FILTER PAPER (PM _{2.5}): 1X1 NO. SO ₂ : 30MLX1 NO. PVC BOTTLE, NO ₂ : 30MLX1 NO. PVC BOTTLE BUBBER BLADDER: 1X1 NO.			

Test Method and NAAQM Standard for Ambient Air Quality Monitoring				
Parameter	Method Reference	NAAQM Standard		
Particulate Matter size less than 10 microns (PM ₁₀)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100		
Particulate Matter size less than 2.5 microns (PM2.5)	CPCBGuidelines VolI	60		
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80		
Nitrogen Dioxide (NO ₂)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80		
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0		
Mercury (Hg)	EPA Method IO-5			

TEST REPORT							
Date of Sampling	PM ₁₀ μg/m ³	PM _{2.5} μg/m ³	SO ₂ μg/m ³	NO ₂ μg/m ³	CO* mg/m³	Hg ng/m ³	
02.08.2021	46	26	12	20	0.4	N.D.	
06.08.2021	48	28	08	22	0.2	N.D.	
09.08.2021	42	24	10	18	0.5	N.D.	
13.08.2021	36	20	16	20	0.6	N.D.	
16.08.2021	48	26	10	24	0.8	N.D.	
20.08.2021	38	20	16	20	0.2	N.D.	
23.08.2021	44	24	12	28	0.6	N.D.	
27.08.2021	46	28	08	22	0.5	N.D.	

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Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA - IV/5, MILUPARA U/G COAL MINE, VILLAGE - MILUPARA, BLOCK - TAMNAR,		LAB RE DATE C	LAB REF NO. 1 DATE OF SAMPLING DATE OF RECEIPT		UES/TR/21-22/2341 UES/21-22/AAQM/4509-4516 03/09/2021 to 27/09/2021 04/09/2021 to 28/09/2021 02/10/2021	
DISTT RAIGARH (C.O		DATE O	F ANALYSIS	START: 04/09	/2021	END:30/09/2021
MONITORING FOR	AMBIENT AIR QUALITY		CUSTOMER REF.	NO. & DATE		SRV/2122/0049, 24-JULY-2021
SAMPLING LOCATION	ETP AREA, KONDEL		***************************************		-7700000000	
DURATION OF SAMPLING	24 HOURS	SAMPLE	COLLECTED BY	LABORATORY	CHEMIST	•
SAMPLING PROCEDURE	AS PER METHOD REFER	ENCE		-1/20	111771111111111111111111111111111111111	
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM ₁₀): SO ₂ : 30MLX1 NO. PVC RUBBER BLADDER: 1X1	BOTTLE, NO2:				

Test Method and NA	Test Method and NAAQM Standard for Ambient Air Quality Monitoring					
Parameter	Method Reference	NAAQM Standard				
Particulate Matter size less than 10 microns (PM ₁₀)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100				
Particulate Matter size less than 2.5 microns (PM2.5)	CPCB Guidelines VolI	60				
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80				
Nitrogen Dioxide (NO2)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80				
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0				
Mercury (Hg)	EPA Method IO-5	20-10				

	TEST REPORT					
Date of Sampling	РМ ₁₀ µg /m³	PM _{2.5} μg/m ³	SO ₂ μg/m³	NO ₂ μg/m³	CO* mg/m³	Hg ng/m³
03.09.2021	44	20	10	24	0.7	N.D.
06.09.2021	32	26	16	26	0.5	N.D.
10.09.2021	42	28	10	28	0.4	N.D.
13.09.2021	36	26	06	28	0.7	N.D.
17.09.2021	40	22	10	20	0.4	N.D.
20.09.2021	38	20	12	24	0.8	N.D.
24.09.2021	44	22	08	18	0.2	N.D.
27.09.2021	38	20	14	28	0.8	N.D.

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AN ISO : 9001:2015 / ISO: 14001:2015 / ISO 45001:2018 CERTIFIED LABORATORY

Annexure – 4A

Fixed type of water sprinklers GP IV/5 coal mine









Annexure - 5



Ph: 0771 - 4027777 | Email: ultimatenviro@gmail.com

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Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496 107		REFORT NO LAB REF NO DATE OF REPORT DATE OF SAMPLING	UES/TR/21-22/0062 UES/21-22/N/058 03/05/2021 26/04/2021 to 27/04/2021
DISTT RAIGAR		LE DETAILS	20,01,2021 00 27,01,2021
MONITORING FOR	NOISE LEVEL MONITORING	CUSTOMER REF. NO. &	M/PO/SRV/2021/0044, DTD: 21-AUG-2020
SAMPLING LOCATION	INSIDE COAL MINE & OUTSIDE C	COAL MINE (AS DESCRIBE	D BELOW)
SAMPLE RECEIVED ON	MONITORING AT	SAMPLE COLLECTED BY	LABORATORY CHEMIST
SAMPLING PROCEDURE	MANUFACTURER'S INSTRUCTION		· · · · · · · · · · · · · · · · · · ·
SAMPLE QUANTITY/PACKING	NOT APPLICABLE		

	TE	ST REPO	ORT			
	UNIT	RES	BULT	LIMIT (INDUSTRIAL ZONE		
LOCATION		DAY TIME	NIGHT TIME	DAY TIME	NIGHT TIME	
OFFICE AREA, MILUPARA	dB(A)	52	46			
INCLINE AREA, MILUPARA	dB (A)	66	60	1	70	
BUNKER AREA, MILUPARA	dB(A)	58	52	75		
DG SET AREA, KONDKEL	dB(A)	56	48			
WEIGHBRIGE AREA, MILUPARA	dB(A)	54	46			
OFFICE AREA, KONDKEL	dB(A)	62	54			
BUNKER AREA, KONDKEL	dB(A)	68	50			
		RESULT		LIMIT (RESIDENTIAL ZONE		
LOCATION	UNIT	DAY TIME	NIGHT TIME	DAY TIME	NIGHT TIME	
Outside Plant	NAC 100 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	A. O. S.		- 1		
SIDARPARA VILLAGE (GOVT. SCHOOL)	dB(A)	52	44			
HIL COLONY, KONDKEL	dB(A)	48	40	55	45	
HIL STAFF QUARTER, MILUPARA	dB(A)	50	42	1		

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TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, COAL MINE, VILLAGE – BANKHETA,		REPORT NO	UES/TR/21-22/0453
		LAB REF NO	UES/21-22/N/0553
		DATE OF REPORT	03/06/2021
POST -MILUPAR DISTT RAIGAR		DATE OF SAMPLING	29/05/2021 to 30/05/2021
	SAM	PLE DETAILS	
MONITORING FOR	NOISE LEVEL MONITORING	CUSTOMER REF. NO. & DATE	M/PO/SRV/2021/0044, DTD: 21-AUG-2020
SAMPLING LOCATION	INSIDE COAL MINE & OUTSIDE (COAL MINE (AS DESCRIBE	D BELOW)
SAMPLE RECEIVED ON	MONITORING AT	SAMPLE COLLECTED BY	LABORATORY CHEMIST
SAMPLING PROCEDURE	MANUFACTURER'S INSTRUCTION		
SAMPLE QUANTITY/PACKING	NOT APPLICABLE		

	Ti	EST REI	PORT		
		RES	BULT	LIMIT (INDUSTRIAL ZONE)	
LOCATION	UNIT	DAY TIME	NIGHT TIME	DAY TIME	NIGHT TIME
OFFICE AREA, MILUPARA	dB(A)	52	48		
INCLINE AREA, MILUPARA	dB(A)	48	42	75	70
BUNKER AREA, MILUPARA	dB(A)	46	40		
DG SET AREA, KONDKEL	dB (A)	54	48		
WEIGHERIGE AREA, MILUPARA	dB (A)	58	42		
OFFICE AREA, KONDKEL	dB(A)	56	46		
BUNKER AREA, KONDKEL	dB(A)	62	54		
	RESUL		BULT	LIMIT (RESIDENTIAL ZONE)	
LOCATION	UNIT	DAY TIME	NIGHT TIME	DAY TIME	NIGHT TIME
Outside Plant				*	45
SIDARPARA VILLAGE (GOVT. SCHOOL)	dB(A)	52	42	55	
HIL COLONY, KONDKEL	dB(A)	48	36	55	
HIL STAFF QUARTER, MILUPARA	dB(A)	46	38		

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Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, COAL MINE, VILLAGE – BANKHETA,		REPORT NO	UES/TR/21-22/0901
		LAB REF NO	UES/21-22/N/1013
		DATE OF REPORT	03/07/2021
POST -MILUPAR DISTT RAIGAR	A, H (C.G.) 496 107	DATE OF SAMPLING	27/06/2021 to 28/06/2021
	SAM	PLE DETAILS	
MONITORING FOR	NOISE LEVEL MONITORING	CUSTOMER REF. NO. &	M/PO/SRV/2021/0044, DTD: 21-AUG-2020
SAMPLING LOCATION	INSIDE COAL MINE & OUTSIDE C	COAL MINE (AS DESCRIBE	D BELOW)
SAMPLE RECEIVED ON	MONITORING AT	SAMPLE COLLECTED BY	LABORATORY CHEMIST
SAMPLING PROCEDURE	MANUFACTURER'S INSTRUCTION	** -*	
SAMPLE QUANTITY/PACKING	NOT APPLICABLE		

	T	EST REI	PORT		
		RES	BULT	LIMIT (INDU:	STRIAL ZONE)
LOCATION	UNIT	· DAY	NIGHT TIME	DAY TIME	NIGHT TIME
OFFICE AREA, MILUPARA	dB (A)	50	46	CONTROL CONTRO	
INCLINE AREA, MILUPARA	dB(A)	46	40		
BUNKER AREA, MILUPARA	dB (A)	44	38	75	70
DG SET AREA, KONDKEL	dB (A)	52	46		
WEIGHERIGE AREA, MILUPARA	dB (A)	56	40		
OFFICE AREA, KONDKEL	dB(A)	54	44		
BUNKER AREA, KONDKEL	dB(A)	60	52		
	RESULT		ULT	LIMIT (RESIDENTIAL ZONE)	
LOCATION	UNIT	DAY TIME	NIGHT TIME	DAY TIME	NIGHT TIME
Outside Plant					
SIDARPARA VILLAGE (GOVT. SCHOOL)	dB(A)	50	40		
HIL COLONY, KONDREL	dB (A)	46	34	55	45
HIL STAFF QUARTER, MILUPARA	dB(A)	44	36		

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TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA,		REPORT NO	UES/TR/21-22/1444
		LAB REF NO	UES/21-22/N/2073-2082
		DATE OF REPORT	02/08/2021
	A, H (C.G.) 496 107	DATE OF SAMPLING	27/07/2021 to 28/08/2021
	SAM	PLE DETAILS	45 Lill 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1
HONITORING FOR	NOISE LEVEL HONITORING	CUSTOMER REF. NO. 6	M/PO/SRV/2021/0044, DTD: 21-AUG-2020
SAMPLING LOCATION	INSIDE COAL MINE & OUTSIDE C	COAL MINE (AS DESCRIBE	D BELOW)
SAMPLE RECEIVED ON	MONITORING AT	SAMPLE COLLECTED BY	LABORATORY CHEMIST
SAMPLING PROCEDURE	MANUFACTURER'S INSTRUCTION	-	
SAMPLE QUANTITY/PACKING	NOT APPLICABLE		

	T	EST RE	PORT		
	RESULT		LIMIT (INDU	STRIAL ZONE)	
LOCATION	UNIT	DAY TIME	NIGHT TIME	DAY TIME	NIGHT TIME
OFFICE AREA, MILUPARA	dB (A)	52	44		
INCLINE AREA, MILUPARA	dit(A)	48	38	75	70
BUNDER AREA, MILUPAKA	dP(A)	40	42		
DG SET AREA, KONOREL	d9 (A)	54	40		
WEIGHBRIGE AREA, MILUPARA	48 (A)	58	42		
OFFICE AREA, ROMDREL	dis(A)	50	48		
SCHRER AREA, KONDKEL	dB(A)	62	50		
	RES		ULT	LIMIT (RESIDENTIAL ZONE)	
LOCATION	UNIT	DAY	NIGHT TIME	DAY TIME	NIGHT TIME
Outside Plant					
SIDARPARA VILLAGE (GOVT. SCHOOL)	dB(A)	46	38		
NIL COLONY, KONINGEL	d9 (A)	48	40	55	45
HIL STAPF QUARTER, HILLIPANA	dB(A)	50	The Control of the Co		

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TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, COAL MINE, VILLAGE – BANKHETA,		REPORT NO	UES/TR/21-22/2152
		LAB REF NO	UES/21-22/N/3525-3534
		DATE OF REPORT	02/09/2021
POST -MILUPAR DISTT RAIGAR	A, tH (C.G.) 496 107	DATE OF SAMPLING	28/08/2021 to 29/08/2021
	SAM	PLE DETAILS	
MONITORING FOR	NOISE LEVEL MONITORING	CUSTOMER REF. NO. &	M/PO/SRV/2122/0049, DTD. 24-JULY-2021
SAMPLING LOCATION	INSIDE COAL MINE & OUTSIDE O	COAL MINE (AS DESCRIBE	D BELOW)
SAMPLE RECEIVED ON	MONITORING AT	SAMPLE COLLECTED BY	LABORATORY CHEMIST
SAMPLING PROCEDURE	MANUFACTURER'S INSTRUCTION	1	
SAMPLE QUANTITY/PACKING	NOT APPLICABLE		

	TI	EST REF	PORT			
		RES	BULT	LIMIT (INDUSTRIAL ZONE)		
LOCATION	UNIT	DAY TIME	NIGHT TIME	DAY TIME	NIGHT TIME	
OFFICE AREA, MILUPARA	dB(A)	58	50			
INCLINE AREA, MILUPARA	dB(A)	50	48		70	
BUNKER AREA, MILUPARA	dB(A)	48	43			
DG SET AREA, KONDKEL	dB(A)	50	45	75		
WEIGHBRIGE AREA, MILUPARA	dB(A)	55	41			
OFFICE AREA, KONDKEL	dB(A)	53	44			
BUNKER AREA, KONDKEL	dB(A)	66	58	A December 1		
		RES	BULT	LIMIT (RESID	ENTIAL ZONE)	
LOCATION	UNIT	DAY TIME	NIGHT TIME	DAY TIME	NIGHT TIME	
Outside Plant	Vinner - Average	lw		10000		
SIDARPARA VILLAGE (GOVT. SCHOOL)	dB(A)	50	40		45	
HIL COLONY, KONDKEL	dB(A)	52	34	55	45	
HIL STAFF QUARTER, MILUPARA	dB(A)	48	39			

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Name & Address of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA - IV/5, COAL MINE, VILLAGE - BANKHETA, POST - MILUPARA, DISTT RAIGARH (C.G.) 496107		REPORT NO.	UES/TR/21-22/2347 UES/21-22/N/4522-4531
		DATE OF REPORT	02/10/2021
		DATE OF SAMPLING	24/09/2021 to 25/09/2021
DISTTI-TOATOAKIT		SAMPLE DETAILS	
MONITORING FOR	NOISE LEVEL MONITORIN	g	
CUSTOMER REF. NO. 6	M/PO/SRV/2122/0049, D		
SAMPLING LOCATION	INSIDE COAL MINE & OU	TSIDE COAL MINE (AS DESCRI	BED BELOW)
SAMPLE COLLECTED BY	LABORATORY CHEMIST		
SAMPLE QUANTITY/ PACKING	NOT APPLICABLE		

Tank No. of the last of the la	TE	ST REP	ORT		
		RES	ULT	LIMIT (IND	JSTRIAL ZONE)
LOCATION	UNIT	DAY TIME	NIGHT TIME	DAY TIME	NIGHT TIME
OFFICE AREA, MILUPARA	dB(A)	54	48		
INCLINE AREA, MILUPARA	dB(A)	58	40		
BUNKER AREA, MILUPARA	dB(A)	52	42	75	
DG SET AREA, KONDKEL	dB(A)	56	46		70
WEIGHBRIGE AREA, MILUPARA	dB(A)	52	42		
OFFICE AREA, KONDKEL	dB(A)	58	48		
BUNKER AREA, KONDKEL	dB(A)	62	54		
		RES	BULT	LIMIT (RES	IDENTIAL ZONE)
LOCATION	UNIT	DAY TIME	NIGHT TIME	DAY TIME	NIGHT TIME
Outside Plant					
SIDARPARA VILLAGE (GOVT. SCHOOL)	dB(A)	48	42	55	45
HIL COLONY, KONDKEL	dB(A)	50	38	33	
HIL STAFF QUARTER, MILUPARA	dB(A)	52	40		

REMARKS: RESULTS ARE AS ABOVE

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- > Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

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AUTHORIZED SIGNATORY

--End of the test report-----

Annexure - 6



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Name & Address Of The C TO, HINDALCO INDU GARE PALMA – MILUPARA U/G VILLAGE – MILU DISTT RAIGAR	REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS DETAILS	UES/2 26/04 27/04 03/05	/2021			
SAMPLE TYPE	WASTE WATER		ORDER /REFERENCE:		M/PO/SRV/2	
CUSTMER SAMPLE ID	ETP INLET, KONDKEL		SAMPLE CONDITION AT	RECEIPT	DTD, 21-AUG-2020 OK	
PACKING OF SAMPLE	SAMPLE COLLECTED BY		CHEMIST			
SAMPLING PROCEDURE	QUANTITY RECEIVED 5 LTR					

	TEST REPORT									
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT					
1	Colour +	Hazen	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1					
2	Odour	-	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable					
3	Temperature	°C	APHA 22mdEd.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.6					
4	рн	-	APHA 22 ^{bd} Ed.2012,4500-H*-B,4- 92	5.5 to 9.0	7.26					
5	Total Residual Chlorine	mg/L	APHA 22 nd Ed.2012,4500-C1-G,4-	1.0	N.D.					
6	Total Suspended Solids	mg/L	APHA 22nd Ed.2012,2540- D, 2-66	100	68.0					
7	Dissolved Phosphate (as P)	mg/L	APHA 22 nd Ed.2012,4500-P-C,4- 153	5.0	1.2					
8	Fluoride (as F)	mg/L	APHA 22 nd Ed.2012,4500-F-B&D,4- 84&87	2.0	0.2					
9	Lead (as Pb)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	. 0.1	N.D.					
10	Zinc (as Zn)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	5.0	0.1					
11	Copper (as Cu)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	3.0	N.D.					
12	Cadmium (as Cd)	mg/L	APHA 22 nd Ed.2012,3500-Cd, 3- 105	2.0	N.D.					
13	Mercury (as Hg)	mg/L	APHA 22 md Ed.2012,3112-B, 3-23	0.01	N.D.					
14	Arsenic (as As)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.2	N.D.					
15	Selenium (as Se)	mg/L	APHA 22md Ed.2012,3114-C, 3-38	0.05	N.D.					
16	Total Chromium(as Cr)	mg/L	АРНА 22 ^{ml} Ed.2012,3500-Cr-B,3- 69	2.0	N.D.					
17	Chemical Oxygen Demand(COD)	mg/L	APHA 22 nd Ed.2012, 5520-B, 5-17	250	168.0					
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	22.3					
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,RA 2003	10	N.D.					
20	Phenolic Compounds (as C ₄ H ₂ OH)	mg/L	IS 3025 (Part 43):1992,RA 2003	1.0	N.D.					

REMARKS: mg/lit: milligram per liter, N.D.-Not Detected.

Terms & conditions
➤ The report for publication, arbitration or as legal dispute is for

The report for publication, arbitration or as legal dispute is forbidden.
 Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

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FOR ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report-



Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph: 0771 - 4027777 | Email: ultimatenviro@gmail.com

Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA,BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107			REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REFORT DATE OF ANALYSIS	UES/2: 29/05: 30/05: 03/06:	/2021	
SAMPLE TYPE	WASTE WATER	SAMPL	CRDER /REFERENCE:	-	M/PO/SRV/2	2021/0044,
			SAMPLE CONDITION AT	DTD. 21-AUG-2020		IG-2020
CUSTMER SAMPLE ID ETP INLET, KONDKEL 3 L X 1 NO. PVC CAN			SAMPLE CONDITION AT	RECEIPT	OK	
		SEALED	SAMPLE COLLECTED BY		CHEMIST	
SAMPLING PROCEDURE	IS:3025(PART I):1987 RA 2003; 22ND ED. 2012, 1060-B, 1-39	QUANTITY RECEIVED		5 LTR		

TEST REPORT									
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1926 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT				
1	Colour	Hazen	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1				
2	Odour	-	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable				
3	Temperature	°C	APHA 22 nd Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.4				
4	рн	-	APHA 22 nd Ed.2012,4500-H*-B,4-92	5.5 to 9.0	7.36				
5	Total Residual Chlorine	mg/L	APHA 22 ^{ml} Ed.2012,4500-Cl-G,4-	1.0	N.D.				
6	Total Suspended Solids	mg/L	APHA 22nd Ed.2012,2540- D, 2-66	100	54.0				
7	Dissolved Phosphate(as P)	mg/L	APHA 22 nd Ed.2012,4500-P-C,4- 153	5.0	1.2				
8	Fluoride (as F)	mg/L	APHA 22 nd Ed.2012,4500-F-B&D,4- 84&87	2.0	0.11				
9	Lead (as Pb)	mg/L	APHA 22nd Ed.2012,3111-B, 3-18	0.1	N.D.				
10	Zinc (as Zn)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	5.0	0.3				
11	Copper (as Cu)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	3.0	N.D.				
12	Cadmium (as Cd)	mg/L	APHA 22 nd Ed.2012,3500-Cd, 3- 105	2.0	N.D.				
13	Mercury (as Hg)	mg/L	APHA 22 nd Ed.2012,3112-B, 3-23	0.01	N.D.				
14	Arsenic (as As)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.2	N.D.				
15	Selenium (as Se)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.05-	N.D.				
16	Total Chromium(as Cr)	mg/L	APHA 22 nd Ed.2012,3500-Cr-B,3-	2.0	N.D.				
17	Chemical Oxygen Demand(COD)	mg/L	APHA 22 nd Ed.2012, 5520-B, 5-17	250	172.0				
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	26.2				
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,RA 2003	10	N.D.				
20	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	IS 3025 (Part 43):1992,RA 2003	1.0	N.D.				

REMARKS: mg/lit: milligram per liter, N.D.-Not Detected.

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer. This is for information as the party has asked for above test(s/co/co) Y 7.

03/06/202/ PREPARED BY

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543Name & Address Of Th.	e Customer		REPORT NO	The second contract of	UES/TR/21-22/0891		
	IOTRIPO I INITER		LAB REF NO	UES/2	1-22/W/10	03	
	JSTRIES LIMITED,		DATE OF SAMPLING	27/06	/2021		
GARE PALMA -			DATE OF RECEIPT	28/06,	/2021		
MILUPARA U/G	COAL WINE, IPARA,BLOCK-TAMNAR.		DATE OF REPORT	03/07	03/07/2021		
	RH (C.G.) 496107	DATE OF ANALYSIS	START: 29/06/2021 END: 02/07/				
		SAMPL	E DETAILS				
SAMPLE TYPE	WASTE WATER		ORDER /REFERENCE:		M/PO/SRV/2 DTD. 21-AU		
CUSTMER SAMPLE ID	RTP INLET, KONDKEL		SAMPLE CONDITION AT RECEIP		CEIPT OK		
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY		CHEMIST		
SAMPLING PROCEDURE	IS:3025 (PART I):1987 RA 2003 22ND ED. 2012, 1060-B, 1-39	QUANTITY RECEIVED		5 LTR			

SR.				THE ENVIRONMENT (PROTECTION) RULES.	
NO.	PARAMETER	UNIT	METHOD OF TEST	1986 (SCHEDULE-VI) PART-A INLAND SURFACE WATER	RESULT
1	Colour	Hazen	APHA 22"Ed. 2012,2120-B,2-6	See 6 of Annexura-I	<1
2	Odour	-	APHA 22 ⁿ² Ed. 2012,2120-B,2-6	See 6 of Annexure-1	Agreeable
3	Temperature	°°C	APHA 22 nd Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.2
4	pli	-	APHA 22 ^{nf} Ed.2012,4500-H ⁻ -B,4- 92	5.5 to 9.0	7.42
5	Total Residual Chlorine	mg/L	APHA 22" Ed.2012,4500-C1-G,4-	1.0	N.D.
6	Total Suspended Solids	mg/L	APHA 22nd Ed.2012,2540- D, 2-66	100	56.0
7	Dissolved Phosphate (as P)	mg/L	APHA 22 nd Ed.2012,4500-P-C,4- 153	5.0	1.1
8	Fluoride (as F)	mg/L	APHA 22 nd Ed.2012,4500-F-BaD,4- 84687	2.0	0.10
9	Lead (as Pb)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	0.1	N.D.
10	Zinc (as Zn)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	5.0	0.2
11	Copper (as Cu)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	3.0	N.D.
12	Cadmium (as Cd)	mg/L	APHA 22 nd Ed.2012,3500-cd, 3- 105	2.0	N.D.
13	Mercury (as Hg)	mg/L	APHA 22nd Ed.2012,3112-B, 3-23	0.01	N.D.
14	Arsenic (as As)	mg/L	APHA 22 ^{nt} Ed.2012,3114-C, 3-38	0.2	N.D.
15	Selenium (as Se)	mg/L	APHA 22 ⁰¹ Ed.2012,3114-C, 3-38	0.05	N.D.
16	Total Chromium(as Cr)	mg/L	APHA 22 nd Ed.2012,3500-Cr-B,3-	2.0	N.D.
17	Chemical Oxygen Demand(COD)	mg/L	APHA 22 nd Ed.2012, 5520-B, 5-17	250	176.0
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	24.5
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991, RA 2003	10	N.D.
20	Phenolic Compounds (as C.H.OH)	mg/L	IS 3025 (Part 43):1992,RA 2003	1.0	N.D.

REMARKS: mg/lit: milligram per liter, N.D.-Not Detected.

Terms & conditions

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Test ample will be retained for 15 days after issue of test report we recollect this is for information as the party has asked for above testig, one



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TO,	he Gustemer		REPORT NO	UES/T	UES/TR/21-22/1434		
	USTRIES LIMITED,		LAB REF NO	UES/2	1-22/W/20	163	
GARE PALMA -			DATE OF SAMPLING	27/07	/2021		
MILUPARA U/G			DATE OF RECEIPT	28/07	/2021		
	PARA,BLOCK-TAMNAR,		DATE OF REPORT	02/08	02/08/2021		
DISTT RAIGA	RH (C.G.) 496107	DATE OF ANALYSIS	START: 28/07/2021 END: 31/07/20				
		SAMPL	E DETAILS	200			
swetz cor	HASTE WATER		CREEK /REFERENCE:		M/PO/SRV/2		
COSTMER SAMPLE ID	ETP INTEY, KONDERL		SAMPLE CONDITION AT	RECEIPT	DTD. 21-AUG-2020		
PACKING OF EARDLE S. L. X. I NO. PVC CAN 2 L. X. I NO. PVC CAN 7 L. X. I NO. GLASS ROPPLE SAMPLING PROCESSING IN 19025 (PART 1):1807 NA. 2003: APRA 22ND ED. 2012, 1000-B, 1-3		SEALED	SAMPLE COLLECTED BY	34	CHEMIST		
		QUAMPITY RECEIVED	5 25R				

_			TEST REPORT		
SR. NO.		PARAMETER UNIT METHOD OF TEST		THE ENVIRONMENT (PROTECTION) RULES, 1988 [SCHEDULE VI) PART-A INLAND SURFACE WATER	RESULT
. 1	Colour	Bazen	APHA 22 Ed. 2012,2320-8,2-6	See 6 of Annexure-I	<1
2	Odour	-	APHA 22 del. 2012,2120-5,2-5	See 6 of Annexore-I	Agreeable
3	Temperature	°c	APHA 22 st Ed. 2012, 2130 - 8, 2-13	Shall not exceed 5°C above the receiving water temperature	25.4
4	ри	-	APMA 22" Ed.2012,4500-H"-B,4- 92	5.5 to 9.0	7.56
5	Total Residual Chlorine	mg/L	APHA 22 rd Ed.2012,4500-C1-G,4- 69	1.0	N.D.
6	Total Suspended Solids	100 m 1 miles of 100 miles of 1		100	58.0
7	Dissolved Phosphate(as P)	mg/L	APHA 22 Nd Ed.2012,4500-P-C,4- 153	5.0	1.2
8	Fluoride (as F)	mg/L	APSA, 22 rd Ed.2012,4500-F-B4D,4- 84487	2.0	0.16
9	Lead (as Pb)	mg/L	APHA 22 rd md.2012,3111-B, 3-18	0.1	N.D.
10	Zinc (as Zn)	mg/4	APHA 22" Ed.2012,3111=B, 3-18	. 5.0	0.1
11	Copper (as Cu)	mg/L	APMA 22 rd Ed.2012,3111-B, 3-18	3.0	N.D.
12	Cadmium (as Cd)	ng/L	APHA 22 ⁽⁴⁾ Ed.2012,3500-Cd, 3- 105	2.0	N.D.
13	Hercury (as Mg)	mg/L	APHA 22" Ed.2012,3112-B, 3-23	0.03	N.D.
14	Argenic (as As)	mg/L	APHA 22 th Ed,2012,3114-C, 3-38	0.2	N.D.
-	Selenium (as Se)	mg/L	AFHA 22 rd Ed.2012,3114-C, 3-38	0.05	N.D.
16	Total Chromium (as Cr)	mg/L	APHA 22 ⁸⁶ Bd. 2012, 3500-Cr-E, 3-	2.0	N.D.
1.7	Chemical Oxygen Demand(COD)	ng/L	APHA 22 nd Ed.2012, 5520-B, 5-17	250	184.0
18	Biochemical Oxygen Demand (BCD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	22.2
19	Oil 6 Grease	mg/L	IS 3025 (Part 39):1991,RA 2003	10	
26	Phenolic Compounds (as C ₄ H ₄ OH)	ng/L	IS 3025 (Part 43):1992,RA 2003	1.0	N.D.



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TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA,BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS E DETAILS	UES/TR/21-22/2141 UES/21-22/W/3514 27/08/2021 29/08/2021 03/09/2021 START:29/08/2021 END:02/09/202			
SAMPLE TYPE	WASTE WATER		ORDER /REFERENCE:		M/PO/SRV/ DTD. 24-3	/2122/00 4 9,
CUSTMER SAMPLE ID	ETP INLET, KONDKEL		SAMPLE CONDITION AT			
PACKING OF SAMPLE 3 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE 1 L X 1 NO. GLASS BOTTLE		SEALED	SAMPLE COLLECTED BY		CHEMIST	
SAMPLING PROCEDURE	IS:3025(PART I):1987 RA 2003 22ND ED. 2012, 1060-B, 1-39	QUANTITY RECEIVED		5 LTR		

	TEST REPORT							
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT			
1	Colour	Hazen	APHA 22ndEd. 2012,2120-B,2-6	See 6 of Annexure-I	<1			
2	Odour	-	APHA 22ndEd. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable			
3	Temperature	°C	АРНА 22 ^{md} Ed. <mark>2012,213</mark> 0-B,2-13	Shall not exceed 5°C above the receiving water temperature	24.8			
4	pH	-	APHA 22nd Ed.2012,4500-H*-B,4-92	5.5 to 9.0	7.46			
5	Total Residual Chlorine	mg/L	APHA 22nd Ed.2012,4500-C1-G,4-69	1.0	N.D.			
6	Total Suspended Solids	mg/L	APHA 22nd Ed.2012,2540- D, 2-66	100	68.0			
7	Dissolved Phosphate (as P)	mg/L	APHA 22nd Ed.2012,4500-P-C,4-153	5.0	1.0			
8	Fluoride (as F)	mg/L	APHA 22 rd Ed.2012,4500-F-B&D,4- 84&87	2.0	0.16			
9	Lead (as Pb)	mg/L	APHA 22°d Ed.2012,3111-B, 3-18	0.1	N.D.			
10	Zinc (as Zn)	mg/L	APHA 22nd Ed.2012,3111-B, 3-18	5.0	0.4			
11	Copper (as Cu)	mg/L	APHA 22nd Ed.2012,3111-B, 3-18	3.0	N.D.			
12	Cadmium (as Cd)	mg/L	APHA 22nd Ed.2012,3500-Cd, 3-105	2.0	N.D.			
13	Mercury (as Hg)	mg/L	APHA 22 nd Ed.2012,3112-B, 3-23	0.01	N.D.			
14	Arsenic (as As)	mg/L	APHA 22md Ed.2012,3114-C, 3-38	0.2	N.D.			
15	Selenium (as Se)	mg/L	APHA 22md Ed.2012,3114-C, 3-38	0.05	N.D.			
16	Total Chromium (as Cr)	mg/L	APHA 22md Ed.2012,3500-Cr-B,3-69	2.0	N.D.			
17	Chemical Oxygen Demand(COD)	mg/L	APHA 22 nd Ed.2012, 5520-B, 5-17	250	184.0			
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	24.8			
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,RA 2003	10	N.D.			
20	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	IS 3025 (Part 43):1992,RA 2003	1.0	N.D.			

REMARKS: mg/lit: milligram per liter, N.D.-Not Detected.

PREPARED BY

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless othe.

This is for information as the party has asked for above test(s) only.

103/09/2

End of the test report-

For ULTIMATE ENVIROLYTICAL SOLUTIONS

03 09 201 AUTHORIZED SIGNATORY



Sampling Procedure

HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph: 0771 - 4027777 | Email: ultimatenviro@gmail.com

Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

Report No UES/TR/21-22/2349 To, UES/21-22/W/4533 HINDALCO INDUSTRIES LIMITED, Date Of Sampling 24/09/2021 GARE PALMA - IV/5, Date Of Receipt 25/09/2021 MILUPARA U/G COAL MINE, Date Of Report 02/10/2021 **VILLAGE - MILUPARA, BLOCK-TAMNAR** Date Of Analysis Start: 25/09/2021 End: 30/09/2021 DISTT. - RAIGARH (C.G.) 496107 SAMPLE DETAILS M/PO/SRV/2122/0049. Sample Type WASTE WATER Customer Ref. No. & Date DTD.: 24-JULY-2021 Customer Sample ID ETP INLET, KONDKEL Sample Condition at Receipt 3 L X 1 NO. FVC CAN 1 L X 1 NO. FVC CAN 1 L X 1 NO. GLASS BOTTLE Packing Of Sample Sealed Sample Collected by Laboratory Chemist IS:3025(PART-I):1987 RA 2003; APHA 22ND ED. 2021, 1060-B, 1-39

Quantity Received

	TEST REPORT							
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT			
1	Colour	Hazen	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1			
2	Odour	-	APHA 22ndEd. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable			
3	Temperature	*c	APHA 22 nd Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	24.2			
4	PH	-	APHA 22 nd Ed.2012,4500-H*-B,4-92	5.5 to 9.0	7.32			
5	Total Residual Chlorine	mg/L	APHA 22nd Ed.2012,4500-C1-G, 4 - 69	1.0	N.D.			
6	Total Suspended Solids	mg/L	APHA 22 nd Ed.2012,2540- D, 2-66	100	78.0			
7	Dissolved Phosphate (as P)	mg/L	APHA 22 nd Ed.2012,4500-P-C, 4-153	5.0	N.D.			
8	Fluoride (as F)	mg/L	APHA 22 nd Ed.2012,4500-F-B&D,4-84 & 87	2.0	0.1			
9	Lead (as Pb)	mg/L	APHA 22nd Ed.2012,3111-B, 3-18	0.1	N.D.			
10	Zinc (as Zn)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	5.0	0.08			
11	Copper (as Cu)	mg/L	APHA 22nd Ed.2012,3111-B, 3-18	3.0	N.D.			
12	Cadmium (as Cd)	mg/L	APHA 22nd Ed.2012,3500-Cd, 3-105	2.0	N.D.			
13	Mercury (as Hg)	mg/L	APHA 22 nd Ed.2012,3112-B, 3-23	0.01	N.D.			
14	Arsenic (as As)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.2	N.D.			
15	Selenium (as Se)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.05	N.D.			
16	Total Chromium (as Cr)	mg/L	APHA 22 nd Ed.2012,3500-Cr-B,3-69	2.0	N.D.			
17	Chemical Oxygen Demand (COD)	mg/L	АРНА 22 nd Ed.2012, 5520-B,5-17	250	198.0			
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025(Part 44):1993,RA 2003	30	26.2			
19	Oil & Grease	mg/L	IS 3025(Part 39):1991,RA 2003	10.0	N.D.			
20	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	IS 3025(Part 43):1992,RA 2003	1.0	N.D.			

Note: mg/lit.:milligram per liter, N.D. - Not Detected. REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- The report for publication, arbitration or as legal dispute is forbidden.
- Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

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For ULTIMATE ENVIROLYTICAL SOLUTIONS

2021

Approx. 5Ltr.



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Name & Address Of The C	nstomer		REPORT NO	UES/TR/21-22/0053			
TO, HINDALCO INDUS	TRIES LIMITED		LAB REF NO	UES/21-22/W/049			
GARE PALMA - IV	H. H. H. L. H.		DATE OF SAMPLING 26/04/2021				
MILUPARA U/G CO	10 10 10 10 10 10 10 10 10 10 10 10 10 1		DATE OF RECEIPT	27/04	27/04/2021		
	ARA, BLOCK-TAMNAR,		DATE OF REPORT 03/05/2021			**********************	
DISTT RAIGARH	I (C.G.) 496107		DATE OF ANALYSIS	START: 28/04/2021 END: 01/05/20			
		SAMPI	LE DETAILS				
SAMPLE TYPE	WASTE WATER		ORDER /REFERENCE:		M/PO/SRV/2021/0044, DTD. 21-AUG-2020		
CUSTMER SAMPLE ID	ETP OUTLET, KONDKEL		SAMPLE CONDITION AT RECEIPT		OK		
PACKING OF SAMPLE	3 L X I NO. PVC CAN 1 L X I NO. PVC CAN 1 L X I NO. GLASS BOTTLE	SAMPLE COLLECTED BY		CHEMIST			
SAMPLING PROCEDURE	IS:3025(FART I):1987 RA 2 22ND ED. 2012, 1060-B, 1-		QUANTITY RECEIVED 5 LTR				

TEST REPORT							
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART- A INLAND SURFACE WATER	RESULT		
1	Colour	Haze n	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1		
2	Odour	-	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable		
3	Temperature	°C	APHA 22 nd Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.8		
4	pН	-	APHA 22nd Ed.2012,4500-H*-B,4-92	5.5 to 9.0	7.16		
5	Total Residual Chlorine	mg/L	APHA 22 nd Ed.2012,4500-C1-G,4-69	1.0	N.D.		
6	Total Suspended Solids	mg/L	APHA 22 nd Ed.2012,2540- D, 2-66	100	20.0		
7	Dissolved Phosphate (as P)	mg/L	APHA 22 nd Ed.2012,4500-P-C,4-153	5.0	0.11		
8	Fluoride (as F)	mg/L	APHA 22 nd Ed.2012,4500-F-B &D,4-84 & 87	. 2.0	0.06		
9	Lead (as Pb)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	0.1	N.D.		
10	Zinc (as Zn)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	5.0	0.2		
11	Copper (as Cu)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	3.0	N.D.		
12	Cadmium (as Cd)	mg/L	APHA 22 nd Ed.2012,3500-Cd, 3-105	2.0	N.D.		
13	Mercury (as Eg)	mg/L	АРНА 22 nd Ed.2012,3112-В, 3-23	0.01	N.D.		
14	Arsenic (as As)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.2	N.D.		
15	Selenium (as Se)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.05	N.D.		
16	Total Chromium (as Cr)	mg/L	APHA 22nd Ed.2012,3500-Cr-B,3-69	2.0	N.D.		
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 nd Ed.2012, 5520-B, 5-17	250	54.0		
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	2.2		
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,RA 2003	10	N.D.		
20	Phenolic Compounds (as CsHsOH)	mg/L	IS 3025 (Part 43):1992, RA 2003	1.0	N.D.		

REMARKS: mg/lit.: milligram per liter, N.D.-Not Detected.

Terms & conditions

The report for publication, arbitration or as legal dispute is farbidden.

The report for publication, arbitration or as legal dispute is farbidden.

Test sample will be retained for 15days after issue of test report press output like.

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Name & Address Of The C	uslomer		REPORT NO UES/TR/21-22/0444 LAB REF NO UES/21-22/W/0544			Annual Control of the	
HINDALCO INDUS			DATE OF SAMPLING				
GARE PALMA – IV MILUPARA U/G CO			DATE OF RECEIPT	30/05	30/05/2021		
	ara, block-tamnar,		DATE OF REPORT				
DISTT RAIGARH	(C.G.) 496107		DATE OF ANALYSIS				
PARTICIPAL AND CONTRACTOR OF THE SECOND		SAM	PLE DETAILS				
SAMPLE TYPE	WASTE WATER		ORDER /REFERENCE: M/PO/SKV/2021/004 DTD. 21-AUG-2020				
CUSTMER SAMPLE ID	ETP OUTLET, KONDKEL		SAMPLE CONDITION AT RECEIPT		OK		
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY		CHEMIST		
SAMPLING PROCEDURE	IS:3025(PART I):1987 RA 20 22ND ED. 2012, 1060-B, 1-3		QUANTITY RECEIVED 5 LTR				

			TEST REPORT		
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCNEDULE, 19] PART- A INLAND SURFACE WATER	RESULT
1	Colour	Haze n	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1
2	Odour	-	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable
3	Temperature	°C	АРНА 22 [™] Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.8
4	рĦ	-	APHA 22 ⁵⁴ Ed.2012,4500-H ⁺ -B,4-92	5.5 to 9.0	7.38
5	Total Residual Chlorine	mg/L	APHA 22 nd Ed.2012,4500-C1-G,4-69	1.0	N.D.
6	Total Suspended Solids	mg/L	APHA 22nd Ed.2012,2540- D, 2-66	100	28.0
7	Dissolved Phosphate (as P)	mg/L	APHA 22 nd Ed.2012,4500-P-C,4-153	5.0	0.19
8	Fluoride (as F)	mg/L	APHA 22 ⁰³ Ed.2012,4500-F-B &D,4-84 & 87	2.0	0.14
9	Lead (as Pb)	mg/L	APHA 22nd Ed.2012,3111-B, 3-18	0.1	N.D.
10	Zinc (as Zn)	mg/L	APHA 22" Ed.2012,3111-B, 3-18	5.0	0.2
11	Copper (as Cu)	mg/L	APHA 22nd Ed.2012,3111-B, 3-18	3.0	N.D.
12	Cadmium (as Cd)	mg/L	APHA 22nd Ed.2012,3500-Cd, 3-105	2.0	N.D.
13	Mercury (as Hg)	mg/L	APHA 22 nd Ed.2012,3112-B, 3-23	0.01	N.D.
14	Arsenic (as As)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.2.	N.D.
15	Selenium (as Se)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.05	N.D.
16	Total Chromium (as Cr)	mg/L	APHA 22nd Ed.2012,3500-Cr-B,3-69	2.0	N.D.
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 nd Ed.2012, 5520-B, 5-17	250	84.0
18	Biochemical Ozygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	6.2
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,RA 2003	10	N.D.
20	Phenolic Compounds (as CaH=OH)	mg/L	IS 3025 (Part 43):1992, RA 2003	1.0	N.D.

REMARKS: mg/lit.: milligram per liter, N.D.-Not Detected.

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 1 Sdays after issue of test report and the provise agreed with customer.

This is for information as the party has asked for above together the party has a second for the part

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For ULTIMATE ENVIROLYTICAL SOLUTIONS 3/06/2021 AUTHORIZED SIGNATORY



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Name & Address Of the C TO, HINDALCO INDUS GARE PALMA — IV MILUPARA U/G C VILLAGE — MILUP DISTT RAIGARE	STRIES LIMITED, 1/5, DAL MINE, ARA, BLOCK-TAMNAR,		REPORT NO UES/TR/21-22/0892 LAB REF NO UES/21-22/W/1004 DATE OF SAMPLING 27/06/2021 DATE OF RECEIPT 28/06/2021 DATE OF REFORT 03/07/2021 DATE OF ANALYSIS START:29/06/2021 END:02/07/2			
		SAM	PLE DETAILS			
SAMPLE TYPE	WASTE WATER	ORDER /REFERENCE: DTD. 21-1		M/PO/SRV/2 DTD. 21-AL		
CUSTMER SAMPLE ID	ETP OUTLET, KONDREL		SAMPLE CONDITION AT RECEIPT		OK	
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY		CHEMIST	
SAMPLING PROCEDURE	IS:3025(PART I):1987 RA 2 22ND ED. 2012, 1060-B, 1-		QUANTITY RECEIVED 5 LTR			

			TEST REPORT		
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1936 [SCHEDULE-VI] PART- A INLAND SURFACE WATER	RESULT
1	Colour	Haze	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1
2	Odour	-	APHA 22°Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable
3	Temperature	°c	АРНА 22 ^{e1} Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.6
4	рH	-	APHA 22th Ed.2012,4500-H-B,4-92	5.5 to 9.0	7.48
5	Total Residual Chlorine	mg/L	APHA 22 ⁵¹ Ed.2012,4500-C1-G,4-69	1.0	N.D.
6	Total Suspended Solids	mg/L	APHA 22" Ed.2012,2540- D, 2-66	100	30.0
7	Dissolved Phosphate (as P)	mg/L	APHA 22 ^{td} Ed.2012,4500-P-C,4-153	5.0	0.16
8	Fluoride (as F)	mg/L	APHA 22 nd Ed.2012,4500-F-B &D,4-84 & 87	2.0	0.11
9	Lead (as Pb)	mg/L	APHA 22 rd Ed.2012,3111-B, 3-18	0.1	N.D.
10	Zinc (as Zn)	mg/L	APHA 22th Ed.2012,3111-B, 3-18	5.0	0.1
11	Copper (as Cu)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	3.0	N.D.
12	Cadmium (as Cd)	mg/L	APHA 22th Ed.2012,3500-cd, 3-105	2.0	N.D.
13	Mercury (as Hg)	mg/L	APHA 22 rd Ed.2012,3112-B, 3-23	0.01	N.D.
14	Arsenic (as As)	mg/L	APHA 22 ^{ml} Ed.2012,3114-C, 3-38	0.2	N.D.
15	Selenium (as Se)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.05	N.D.
16	Total Chromium (as Cr)	mg/L	APHA 22nd Ed.2012,3500-Cr-B,3-69	2.0	N.D.
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 nd Ed.2012, 5520-B, 5-17	250	88.0
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	5.8
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,RA 2003	10	N.D.
20	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	IS 3025 (Part 43):1992, RA 2003	1.0	N.D.

Terms & conditions

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Test sample will be retained for 15days after issue of test report phase of the sample.

This is for information as the party has asked for above test(s) only a sample.

FOR ULTIMATE ENVIROLYTICAL SOLUTIONS

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TO, HINDALCO INDUS	REX HEAR	REPORT NO LAB REF NO	UES/TR/21-22/1435 UES/21-22/W/2064			
GARE PALMA - IV	7/5,	DATE OF SAMPLING	27/07	27/07/2021		
MILUPARA U/G C	OAL MINE,	DATE OF RECEIPT 28/07/2021		/2021		
VILLAGE - MILUP	ARA, BLOCK-TAMNAR,	DATE OF BEFORE	02/08/2021			
DISTT RAIGARI	1 (C.G.) 496107	DATE OF ANALYSIS	START:28/07/2021 END:31/07/20			
	SAM	PLE DETAILS	STORES.		ASSESSED FOR STREET	
SAMPLE TYPE	WASTE WATER	GROER /REFERENCE:		M/PO/SRV/2		
CUSTMER SAMPLE ID	ETP COTTER, KONDEEL	SAMPLE CONDITION AT	RECEIPT	TON, 22-ADO-2020 CHEMIST		
PACKING OF SAMPLE	J L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN SEALED 1 L X 1 NO. GLASS DOTTIX	SAMPLE COLLECTED BY				
SAMPLING PROCEDURE	28:3025(PART 2):1987 NA 2003; APRA 22ND ED. 3012; 2060-8, 1-39	QUARTITY RECEIVED		5 Lin		

TEST REPORT								
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE VIT) PART- A INLAND SURFACE WATER	RESULT			
1	Colour	Haze n	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Assexure-I	<1			
2	Odour	-	APHA 22 ⁵⁶ Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agraeable			
3	Temperature	°C	APHA 22"4Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25,2			
4	pH	-	APHA 22° Ed. 2012, 4500-H - B, 4-92	5.5 to 9.0	7.42			
5.	Total Residual Chlorine	ng/L	APHA 22 nd Ed.2012,4500-C1-G,4-69	1.0	N.D.			
6	Total Suspended Solids	mg/L	APHA 22 nd Ed.2012,2540- D, 2-66	100	26.0			
7	Dissolved Phosphate (as P)	mg/L	APHA 22° %d.2012,4500-P-C,4-153	5.0	0.12			
B	Fluorido (as F)	mg/L	APHA 22 ^{nf} Rd.2012,4500-F-B 6D,4-84 6 87	2.0	0.00			
9	Lead (as Pb)	mg/L	APRA 22" Bd.2012,3111-B, 3-18	0.1	N.D.			
10	Zinc (as Zn)	mq/L	APHA 22 nd Bd.2012,3111-8, 3-18	5.0	0.2			
11	Copper (as Cu)	ng/L	APHA 22°d Rd.2012,3111-5, 3-18	3.0	N.D.			
12	Codmium (as Cd)	mg/L	APHA 22 nd Ed.2012,3500-Cd, 3-105	2.0	N.D.			
13	Mercury (as Hg)	mg/L	APHA 22 nd Ed.2012,3112-B, 3-23	0.01	N.D.			
14	Arsenic (as As)	ng/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.2	N.D.			
15	Selenium (as Se)	mg/L	APHA 22" Ed. 2012, 3114-C, 3-38	0.05	N.D.			
16	Total Chromium (as Cr)	mg/L	APHA 22 nd Ed.2012,3500-Cr-B,3-69	2.0	N.D.			
17.	Chemical Oxygen Demand (COD)	mg/L	APHA 22 nd Rd.2012, 5520-B, 5-17	250	74.0			
18	Biochemical Oxygen Domand (BOD)	ng/L	IS 3025 (Part 44):1993, RA 2003	30	2.6			
19	Oil & Greage	ng/L	IS 3025 (Part 39):1991,RA 2003	10	N.D.			
20	Phenolic Compounds (as C:H:OH)	mg/L	IS 3025 (Part 43):1992, RA 2083	1.0	N.D.			

REMARKS: mg/lit.: milligram per liter, N.D.-Not Detected.

The report for publication, arbitration or as legal dispute is forbidden.

That sample will be retained for #Schape after issue of test report unless otherwise agreed with continuer.

This is for information as the name has solved for above metric con-

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Name & Address Of The C	ustomer		REPORT NO	UES/TR/21-22/2142			
HINDALCO INDUS	TRIES I IMITED		LAB REF NO	UES/2	1-22/W/3515		
GARE PALMA - IV			DATE OF SAMPLING	27/08	/2021		
MILUPARA U/G C	CONTRACTOR		DATE OF RECEIPT	29/08	/2021		
VILLAGE - MILUP	ARA, BLOCK-TAMNAR,		DATE OF REPORT 03/0		9/2021		
DISTT RAIGARI	I (C.G.) 496107	DATE OF ANALYSIS	START:29/08/2021 END:02/09/				
		SAME	LE DETAILS	DA 50 145			
SAMPLE TYPE	WASTE WATER		ORDER /REFERENCE:		M/PO/SRV/ DTD, 24-2	/2122/0049, TULY-2021	
CUSTMER SAMPLE ID	ETP OUTLET, KONDKEL		SAMPLE CONDITION AT	RECEIPT	OK		
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY		CHEMIST		
SAMPLING PROCEDURE IS:3025 (PART I):1987 RA 2003; APHA 22ND ED. 2012, 1060-B, 1-39			QUANTITY RECEIVED		5 LTR		

	TEST REPORT								
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT				
1	Colour	Haze	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1				
2	Odour	-	APHA 22ndEd. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable				
3	Temperature	°C	APHA 22 nd Ed.2012,2130-8,2-13	Shall not exceed 5°C above the receiving water temperature	25.4				
4	pH	-	APHA 22nd Ed.2012,4500-H+-B,4-92	5.5 to 9.0	7.22				
5	Total Residual Chlorine	mg/L	АРНА 22 nd Ed.201 <mark>2,4500-С</mark> 1-G,4-69	1.0	N.D.				
6	Total Suspended Solids	mg/L	APHA 22nd Ed.2012,2540- D, 2-66	100	26.0				
7	Dissolved Phosphate (as P)	mg/L	АРНА 22 nd Ed.2 <mark>012,4500-Р-С,4-153</mark>	5.0	0.11				
8	Fluoride (as F)	mg/L	APHA 22 nd Ed.2012,4500-F-B &D,4-84 & 87	2.0	0.18				
9	Lead (as Pb)	mg/L	APHA 22nd Ed.2012,3111-B, 3-18	0.1	N.D.				
10	Zinc (as Zn)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	5.0	0.3				
11	Copper (as Cu)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	3.0	N.D.				
12	Cadmium (as Cd)	mg/L	APHA 22nd Ed.2012,3500-Cd, 3-105	2.0	N.D.				
13	Mercury (as Hg)	mg/L	APHA 22nd Ed.2012,3112-B, 3-23	0.01	N.D.				
14	Arsenic (as As)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.2	N.D.				
15	Selenium (as Se)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.05	N.D.				
16	Total Chromium (as Cr)	mg/L	APHA 22 nd Ed.2012,3500-Cr-B,3-69	2.0	N.D.				
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 nd Ed.2012, 5520-B, 5-17	250	54.0				
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	4.8				
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991, RA 2003	10	N.D.				
20	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	IS 3025 (Part 43):1992, RA 2003	1.0	N.D.				

REMARKS: mg/lit.: milligram per liter, N.D.-Not Detected.

- The report for publication, arbitration or as logal dispute is forbidden.

 Test sample will be retained for 15days after issue of test report unless of the strained for the sample will be retained for the party has asked for above test(s) only.

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to Name & Address Of The I	Customer		Report No Lab Ref No		UES/TR/21-22/2350 UES/21-22/W/4534			
HINDALCO INDUST	RIES LIMITED,				24/09/2021			
GARE PALMA - IV/5			Date Of Receipt	25/09/2	021			
MILUPARA U/G CO.	AL MINE,		Date Of Report	02/10/2021				
VILLAGE - MILUPA DISTT RAIGARH	RA, BLOCK-TAMNAR (C.G.) 496107		Date Of Analysis	Start:25/	09/2021	End: 30/09/2021		
		SAMP	LE DETAILS			The second second		
Sample Type	WASTE WATER		Customer Ref. No.	& Date	M/PO/SRV/ DTD.:24-3	/2122/0049, TULY-2021		
Customer Sample ID	ETP OUTLET, KONDKEL		Sample Condition	At Receipt	Ok			
Packing Of Sample	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	Sealed	Sample Collected 1	Ву	Laborator	y Chemist		
Sampling Procedure IS:3025(PART-I):1987 RA 2003; APHA 22 DD ED. 2021, 1060-B, 1-39			Quantity Received		Approx. 5Ltr.			

	TEST REPORT								
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT				
1	Colour	Hazen	APHA 22ndEd. 2012,2120-B,2-6	See 6 of Annexure-I	<1				
2	Odour	-	APHA 22ndEd. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable				
3	Temperature	,c	APHA 22 nd Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.6				
4	pH	-	APHA 22nd Ed.2012,4500-H+-B,4-92	5.5 to 9.0	7.36				
5	Total Residual Chlorine	mg/L	APHA 22 nd Ed.2012,4500-Cl-G, 4 - 69	1.0	N.D.				
6	Total Suspended Solids	mg/L	APHA 22 nd Ed.2012,2540- D, 2-66	100	22.0				
7	Dissolved Phosphate (as P)	mg/L	APHA 22 nd Ed.2012,4500-P-C, 4-153	5.0	N.D.				
8	Fluoride (as F)	mg/L	APHA 22 nd Ed.2012,4500-F-B&D,4-84 & 87	2.0	0.1				
9	Lead (as Pb)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	0.1	N.D.				
10	Zinc (as Zn)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	5.0	0.04				
11	Copper (as Cu)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	3.0	N.D.				
12	Cadmium (as Cd)	mg/L	APHA 22nd Ed.2012,3500-Cd, 3-105	2.0	N.D.				
13	Mercury (as Hg)	mg/L	APHA 22 nd Ed.2012,3112-B, 3-23	0.01	N.D.				
14	Arsenic (as As)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.2	N.D.				
15	Selenium (as Se)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.05	N.D.				
16	Total Chromium (as Cr)	mg/L	APHA 22 nd Ed.2012,3500-Cr-B,3-69	2.0	N.D.				
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 nd Ed.2012, 5520-B,5-17	250	84.0				
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025(Part 44):1993,RA 2003	30	8.2				
19	Oil & Grease	mg/L	IS 3025(Part 39):1991,RA 2003,	10.0	N.D.				
20	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	IS 3025(Part 43):1992,RA 2003	1.0	N.D.				

Note: mg/lit.:milligram per liter, N.D. - Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- > The report for publication, arbitration or as legal dispute is forbidden.
- Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) only

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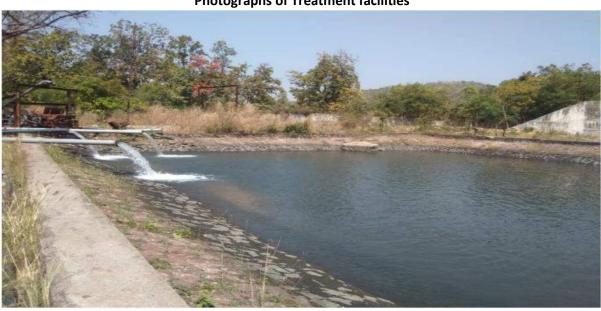
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AN ISO: 9001:2015 / ISO: 14001:2015 / ISO: 45001:2018 CERTIFIED LABORATORY

Annexure – 6A

Photographs of Treatment facilities





SETTLING POND NO - 5



Effluent Treatment Plant - Kondkel - 200 Cum /Hrs X 2



Water Treatment Plant (WTP) - Kondkel - 5 X 5 Cum / Hrs



Reverse Osmosis Plant (RO Plant) - Kondkel 2 x 2 Cum/Hrs

Annexure – 6A



Reverse Osmosis Plant (RO Plant) – Milupara – 5 Cum / Hrs



Iron Removal Plant (IRP Plant) – Milupara – 5 Cum / Hrs



Annexure – 6AA



Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099

Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

Name & Address Of The G TO, HINDALCO INDUS			REPORT NO LAB REF NO	UES/TR/21-22/0054 UES/21-22/W/050			
GARE PALMA - IV	전쟁 (전 10 전 1	DATE OF SAMPLING	26/04	/2021			
MILUPARA U/G C			DATE OF RECEIPT	27/04	27/04/2021		
: 즐겁게 하면 하다 하다 하는데 : [18]	ARA, BLOCK-TAMNAR,		DATE OF REPORT				
DISTT RAIGARI	1 (C.G.) 496107		DATE OF ANALYSIS				
		SAMPLE	E DETAILS				
SAMPLE TYPE	WASTE WATER		ORDER /REFERENCE:	· · · · · · · · · · · · · · · · · · ·	M/PO/SRV/		
CUSTMER SAMPLE ID	STP INLET, PORTACABIN		SAMPLE CONDITION AT R	ECEIPT	OK		
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY		CHEMIST		
SAMPLING PROCEDURE	IS:3025(PART I):1987 RA 2003, 22ND ED. 2012, 1060-B, 1-39	QUANTITY RECEIVED 5 LT		5 LTR			

	TEST REPORT								
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 (SCHEDULE-VI) PART-A INLAND SURFACE WATER	RESULT				
1	Colour	Hazen	AFHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1				
2	Odour	-	APHA 22ndEd. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable				
3	Temperature	°C	арна 22 nd Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.8				
4	рН	-	APHA 22 nd Ed.2012,4500-H*-B,4-92	5.5 to 9.0	7.38				
5	Total Residual Chlorine	mg/L	APHA 22 nd Ed.2012,4500-Cl-G,4- 69	1.0	N.D.				
6	Total Suspended Solids	mg/L	APHA 22nd Ed.2012,2540- D, 2-66	100	48.0				
7	Dissolved Phosphate (as P)	mg/L	APHA 22 nd Ed.2012,4500-P-C,4-153	5.0	0.2				
8	Fluoride (as F)	mg/L	APHA 22 nd Ed.2012,4500-F-B &D,4- 84 & 87	2.0	0.1				
9	Lead (as Pb)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	0.1	N.D.				
10	Zinc (as Zn)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	5.0	0.42				
11	Copper (as Cu)	mg/L	APHA 22nd Ed.2012,3111-B, 3-18	3.0	N.D.				
12	Cadmium (as Cd)	mg/L	APHA 22 nd Ed.2012,3500-Cd,3-105	2.0	N.D.				
13	Mercury (as Hg)	mg/L	APHA 22 nd Ed.2012,3112-B, 3-23	0.01	N.D.				
14	Arsenic (as As)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.2	N.D.				
15	Selenium (as Se)	mg/L	APHA 22nd Ed.2012,3114-C, 3-38	0.05	N.D.				
16	Total Chromium (as Cr)	mg/L	APHA 22nd Ed.2012,3500-Cr-B,3-69	2.0	N.D.				
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 nd Ed.2012, 5520-8,5-17	250	144.0				
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993,RA 2003	30	18.6				
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,RA 2003	10	N.D.				
20	Phenolic Compounds (as C&HsOH)	mg/L	IS 3025 (Part 43):1992,RA 2003	1.0	N.D.				

REMARKS: mg/lit.: milligram per liter, N.D.-Not Detected.

Terms & conditions

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Test sample will be retained for 15days after issue of less report saless otherwise agreed with customer,

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End of the test report----



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Name & Address Of The C	ustomer		REPORT NO	UES/TI	TR/21-22/0445		
TO,			LAB REF NO	UES/21-22/W/0545			
HINDALCO INDUS GARE PALMA - IN			DATE OF SAMPLING	29/05,	/2021		
MILUPARA U/G C			DATE OF RECEIPT	30/05/2021			
	ARA, BLOCK-TAMNAR,		DATE OF REPORT	03/06,	/2021		
DISTT RAIGARI	i (C.G.) 496107		DATE OF ANALYSIS	START: 31/05/2021 END: 03/06/2			
		SAMP	LE DETAILS	And the same			
SAMPLE TYPE	WASTE WATER		ORDER /REFERENCE:		M/PO/SRV/2 DTD. 21-AU		
CUSTMER SAMPLE ID	STP INLET, PORTACABIN		SAMPLE CONDITION AT R	ECEIPT	OK	22222	
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY		CHEMIST		
SAMPLING PROCEDURE	IS:3025(PART I):1987 RA 2003; 22ND ED. 2012, 1060-B, 1-39	APHA	QUANTITY RECEIVED		5 LTR		

	TEST REPORT								
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT				
1	Colour	Hazen	APHA 22 nd Ed. 2012,2120-B,2-6	See S of Annexure-I	<1				
2	Odour	-	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annegure-I	Agreeable				
3	Temperature	°c	APHA 22 nd Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.3				
4	pн	-	APHA 22nd Ed.2012,4500-H'-B,4-92	5.5 to 9.0	7.28				
5	Total Residual Chlorine	mg/L	APHA 22 nd Ed.2012,4500-C1-G,4- 69	1.0	N.D.				
6	Total Suspended Solids	mg/L	APHA 22nd Ed.2012,2540- D, 2-66	100	46.0				
7	Dissolved Phosphate (as P)	mg/L	APHA 22 nd Ed.2012,4500-P-C,4-153	5.0	0.4				
8	Fluoride (as F)	mg/L	APHA 22 nd Ed.2012,4500-F-B &D,4- 84 & 87	2.0	0.2				
9	Lead (as Pb)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	0.1	N.D.				
10	Zinc (as Zn)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	5.0	0.36				
11	Copper (as Cu)	mg/L	APHA 22 ^{cf} Ed.2012,3111-B, 3-18	3.0	N.D.				
12	Cadmium (as Cd)	mg/L	APHA 22 nd Ed.2012,3500-Cd,3-105	2.0	N.D.				
13	Mercury (as Hg)	mg/L	APHA 22 nd Ed.2012,3112-B, 3-23	0.01	N.D.				
14	Arsenic (as As)	mg/L	APHA 22 rd Ed.2012,3114-C, 3-38	0.2	N.D.				
15	Selenium (as Se)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.05	N.D.				
16	Total Chromium (as Cr)	mg/L	APHA 22 nd Ed.2012,3500-Cr-B,3-69	2.0	N.D.				
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 nd Ed.2012, 5520-B,5-17	250	188.0				
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993,RA 2003	30	28.4				
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,RA 2003	10	N.D.				
20	Phenolic Compounds (as C_fH_OH)	mg/L	IS 3025 (Part 43):1992,RA 2003	1.0	N.D.				

REMARKS: mg/lit.: milligram per liter, N.D.-Not Detected.

Terms & conditions

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> Test sample will be retained for 15days after issue of tersympt unless otherwise agreed with customer.

This is for information as the party has asked for her cases with

WHIN 03 06 2021

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AUTHORIZED SIGNATORY

-End of the test report-



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Name & Address Of The C TO, HINDALCO INDUS GARE PALMA - IN MILUPARA U/G C VILLAGE - MILUF DISTT RAIGARI	STRIES LIMITED, 1/5, OAL MINE, PARA, BLOCK-TAMNAR,		REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS	UES/2 27/06, 28/06, 03/07,	UES/TR/21-22/0893 UES/21-22/W/1005 27/06/2021 28/06/2021 03/07/2021 START:29/06/2021 END:02/07/202			
		SAMP	LE DETAILS	All Messes				
SAMPLE TYPE	WASTE WATER		ORDER /REFERENCE:	01/2/2010 TO 1 TO	M/PO/SRV/2 DTD. 21-AU			
CUSTMER SAMPLE ID	STP INLET, PORTACABIN		SAMPLE CONDITION AT RE	ECEIPT	OK			
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	STALED	SAMPLE COLLECTED BY		CHEMIST			
SAMPLING PROCEDURE	IS:3025(PART I):1987 RA 2003, 22ND ED. 2012, 1060-B, 1-39	QUANTITY RECEIVED		5 LTR				

	TEST REPORT							
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT			
1	Colour	Hazen	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1			
2	Odour	-	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable			
3	Temperature	ಿರ	APHA 22 ⁵³ Ed.2012,2130-B,2-13	Shall not exceed 5°C shove the receiving water temperature	25.1			
4	pн	-	APHA 22" Ed.2012,4500-H-B,4-92	5.5 to 9.0	7.31			
5	Total Residual Chlorine	mg/L	APHA 22nd Ed.2012,4500-C1-G,4- 69	1.0	N.D.			
6	Total Suspended Solids	mg/L	APHA 22 nd Ed.2012,2540- D, 2-66	100	48.0			
7	Dissolved Phosphate (as P)	mg/L	APHA 22 nd Ed.2012,4500-P-C,4-153	5.0	0.3			
8	Fluoride (as F)	mg/L	APHA 22 ⁶⁴ Ed.2012,4500-F-B &D,4- 84 & 87	2.0	0.4			
9	Lead (as Pb)	mg/L	APHA 2211 Ed.2012,3111-B, 3-18	0.1	N.D.			
10	Zinc (as Zn)	mg/L	APHA 22" Ed.2012,3111-B, 3-18	5.0	0.37			
11	Copper (as Cu)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	3.0	N.D.			
12	Cadmium (as Cd)	mg/L	APHA 22nd Ed.2012,3500-Cd,3-105	2.0	N.D.			
13	Mercury (as Hg)	mg/L	APHA 22 nd Ed.2012,3112-B, 3-23	0.01	N.D.			
14	Arsenic (as As)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.2	N.D.			
15	Selenium (as Se)	mg/L	APHA 22 ^{hl} Ed.2012,3114-C, 3-38	0.05	N.D.			
16	Total Chromium (as Cr)	mg/L	APHA 22 nd Ed.2012,3500-Cr-B,3-69	2.0	N.D.			
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 ^{nl} Ed.2012, 5520-B,5-17	250	194.0			
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993,RA 2003	30	26.2			
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991, RA 2003	10	N.D.			
20	Phenolic Compounds (as C _c H ₅ OH)	mg/L	IS 3025 (Part 43):1992,RA 2003	1.0	N.D.			

REMARKS: mg/lit.: milligrem per liter, N.D.-Not Detected.

Terms & conditions

> The report for publication, arbitration or as legal dispute to forthicken.

> Test sample will be retained for 15days after issue of conference of the softening and the customer.

> This is for information as the party has asked for above results from the customer.

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-----End of the test report-----



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GARE PALMA - IV MILUPARA U/G C	STRIES LIMITED, 1/5, OAL MINE, PARA, BLOCK-TAMNAR,		REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS	UES/2 27/07 28/07 02/08	/2021	
		SAMP	LE DETAILS	***		
SAMPLE TYPE	MASTE MATER		ORDER /REFERENCE:		M/PO/SRV/2 DID. 21-AU	
CUSTNER SAMPLE 20	STP INLEY, FORTACABLE		SAMPLE COMDITION AT RE	BCEIPT	OK OK	
PACKING OF SAMPLE	3 & X I NO. FVC CAN I S X I NO. FVC CAN I E X I NO. GLASS BOPFLE	SHOTE COLLECTED ST		CHIMIST		
SAMPLING PROXEDURE	IS:3025(PART I):1987 RA 2003. 2200 ED. 2012, 1060-B, 1-39	QUARTITY RECKIVED		5 X2R		

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AUTHORIZED SIGNATORY

0208 2021

TEST REPORT								
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) HULES, 1986 (SCHEDULE-VII) PART-A INLAND SURFACE WATER	RESULT			
1	Colour	Mazen	APHA 2200Ed. Z012,2120-B,2-6	See 5 of Announce-I	<1			
2	Odour	-	APHA 22 ^{co} Ed. 2012,2120-0,2-6	Boo 6 of Annexure-I	Agrecable			
3	Temperature	ής.	APHA 22 ^{ne} Ed.2012,2130-8,2-13	Shall not exceed 5°C above the receiving water temmerature	25.6			
4	pli	×	APMA 22" Ed.2012, 4500-8"-8, 4-92	5.5 to 9.0	7.48			
5	Fotal Residual Chlorine	ng/L	AFMA 22 rd Ed.2012,4500-C1-G,4- 69	1.0	N.D.			
6	Total Suspended Solids	ng/1.	APHA 22 M Ed. 2012, 2540- D. 2-66	160	52.0			
7	Dissolved Phosphate (as P)	mg/1.	APHA 22 nd Ed.2012,4500-P-C,4-153	5.0	0.2			
В	Fluoride (as F)	mg/L	APHA 22 nd Ed.2012,4500-F-B &D,4- 84 & 87	2.0	0.4			
9	Lead (as Pb)	mg/L	APHA 22 rd Ed.2012,3111-B, 3=18	0.1	N.D.			
10	Zinc (as En)	mg/L	APHA 22° Ed. 2012, 3111-8, 3-18	5.0	0.28			
11	Copper (as Cu)	mg/L	APHA 22° Ed.2012, 3111-B, 3-18	1 3.0	N.D.			
12	Cadmium (as Cd)	mg/L	APHA 22 8d.2012, 3500-cd, 3-105	2.0	N.D.			
13	Mercury (as Bg)	mg/L	APHA 22° Ed.2012,3112-B, 3-23	0.01	N.D.			
14	Arsenic (as As)	ng/L	APHA 22" Ed.2012,3114-C, 3-38	0.2	N.D.			
15	Selenium (as Se)	ng/L	APHA 22" Ed. 2012, 3114-C, 3-38	0.05	N.D.			
16	Total Chromium (as Cr)	ng/L	APHA 22°d Ed. 2012, 3500-Cr-8, 3-69	2.0	N.D.			
17	Chemical Oxygen Demand (COD)	ng/L	APHA 22 ⁸⁴ Ed.2012, 5520-B,5-17	250	174.0			
18	Biochemical Oxygen Demand (BOD)	ng/L	IS 3025 (Part 44):1993,RA 2003	30 ,	22.8			
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991, RA 2003	10	N.D.			
20	Phenolic Compounds (as C,H,OH)	mg/L	IS 3025 (Part 43):1992,RA 2003	1.0	N.D.			

REMARKS: mg/lt.: miligram per liter, N.D.-Not Detected.

Terms & conditions

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This is for information as the party has asked for above initial public.

End of the test report-



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Name & Address Of The C	Castomer		REPORT NO	UES/T	UES/TR/21-22/2143		
	STRIES LIMITED.	LAB REF NO		UES/21-22/W/3516			
GARE PALMA - IN			DATE OF SAMPLING	27/08/2021			
MILUPARA U/G C	Programme and the second second		DATE OF RECEIPT	29/08	/2021		
VILLAGE - MILUF	ARA, BLOCK-TAMNAR,		DATE OF REPORT	03/09/	03/09/2021		
DISTT RAIGARI	H (C.G.) 496107		DATE OF ANALYSIS	START: 2	END: 02/09/2021		
		SAMP	LE DETAILS	Esch di			
SAMPLE TYPE	WASTE WATER		ORDER /REFERENCE:		M/PO/SRV/ DTD. 24-J	2122/0049, ULY-2021	
CUSTMER SAMPLE ID	STP INLET, PORTACABIN		SAMPLE CONDITION AT RE	ECEIPT	OK		
PACKING OF SAMPLE	3 L X 1 NO. FVC CAN 1 L X 1 NO. FVC CAN 1 L X 1 NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY	***************************************	CHEMIST		
SAMPLING PROCEDURE IS:3025 (PART I):1987 RA 2003; APHA 22ND ED. 2012, 1060-B, 1-39			QUANTITY RECEIVED		5 LTR		

TEST REPORT								
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 (SCHEDULE-VI) PART-A INLAND SURFACE WATER	RESULT			
1	Colour	Hazen	APHA 22ndEd. 2012,2120-B,2-6	See 6 of Annexure-I	<1			
2	Odour	-	APHA 22ndEd, 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable			
3	Temperature	°C	APHA 22 nd Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.4			
4	pH	-	APHA 22nd Ed.2012,4500-H*-B,4-92	5.5 to 9.0	7 18			
5	Total Residual Chlorine	mg/L	APHA 22 nd Ed.2012,4500-C1-G,4- 69	1.0	N.D.			
6	Total Suspended Solids	mg/L	APHA 22nd Ed.2012,2540- D, 2-66	100	42.0			
7	Dissolved Phosphate (as P)	mg/L	APHA 22 nd Ed.2012,4500-P-C,4-153	5.0	0.6			
8	Fluoride (as F)	mg/L	APHA 22 nd Ed.2012,4500-F-B &D,4-84 & 87	2.0	0.1			
9	Lead (as Pb)	mg/L	APHA 22nd Ed.2012,3111-B, 3-18	0.1	N.D.			
10	Zinc (as Zn)	mg/L	APHA 22nd Ed.2012,3111-B, 3-18	5.0	0.46			
11	Copper (as Cu)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	3.0	N.D.			
12	Cadmium (as Cd)	mg/L	APHA 22nd Ed.2012,3500-Cd,3-105	2.0	N.D.			
13	Mercury (as Hg)	mg/L	APHA 22 nd Ed.2012,3112-B, 3-23	0.01	N.D.			
14	Arsenic (as As)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.2	N.D.			
15	Selenium (as Se)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.05	N.D.			
16	Total Chromium (as Cr)	mg/L	APHA 22 nd Ed.2012,3500-Cr-B,3-69	2.0	N.D.			
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 nd Ed.2012, 5520-B,5-17	250	164.0			
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993,RA 2003	30	22.8			
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,RA 2003	10	N.D.			
20	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	IS 3025 (Part 43):1992,RA 2003	1.0	N.D.			

REMARKS: mg/lit.: milligram per liter, N.D.-Not Detected.

Terms & conditions

- The report for publication, arbitration or as legal dispute is forbidden.
- Test sample will be retained for 15days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above testis only

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AUTHORIZED SIGNATORY

-End of the test report-



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to Name & Address Of The I	Customer		Report No	UES/TR/	UES/TR/21-22/2351		
To,			Lab Ref No	UES/21-22/W/4534			
	STRIES LIMITED,		Date Of Sampling	24/09/2	24/09/2021		
GARE PALMA - IV	CONTRACTOR		Date Of Receipt	25/09/2	021	***************************************	
MILUPARA U/G C			Date Of Report	02/10/2	02/10/2021		
DISTT RAIGAR	PARA, BLOCK-TAMNAF H (C.G.) 496107	Date Of Analysis	Start:25/09/2021 End:30/09/				
		SAMPI	LE DETAILS				
Sample Type	WASTE WATER		Customer Ref. No.	& Date	M/PO/SRV/ DTD.:24-3	/2122/0049, ULY-2021	
Customer Sample ID	STP INLET, PORTACABIN		Sample Condition 2	At Receipt	Ok		
Packing Of Sample	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	Sealed	Sample Collected E	3 y	Laborator	y Chemist	
Sampling Procedure	IS:3025(PART-I):1987 RA APHA 22 ND ED. 2021, 1060	Quantity Received		Approx. 5Ltr.			

	TEST REPORT								
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT				
1	Colour	Hazen	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1				
2	Odour	-	APHA 22ndEd. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable				
3	Temperature	*c	APHA 22 nd Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	24.2				
4	рн	-	APHA 22nd Ed.2012,4500-H*-B,4-92	5.5 to 9.0	7.58				
5	Total Residual Chlorine	mg/L	APHA 22 nd Ed.2012,4500-C1-G, 4 - 69	1.0	N.D.				
6	Total Suspended Solids	mg/L	APHA 22 nd Ed.2012,2540- D, 2-66	100	24.0				
7	Dissolved Phosphate (as P)	mg/L	APHA 22 nd Ed.2012,4500-P-C, 4-153	5.0	N.D.				
8	Fluoride (as F)	mg/L	APHA 22nd Ed.2012,4500-F-B&D,4-84 & 87	2.0	0.1				
9	Lead (as Pb)	mg/L	APHA 22nd Ed.2012,3111-B, 3-18	0.1	N.D.				
10	Zinc (as Zn)	mg/L	APHA 22nd Ed.2012,3111-B, 3-18	5.0	0.11				
11	Copper (as Cu)	mg/L	APHA 22nd Ed.2012,3111-B, 3-18	3.0	N.D.				
12	Cadmium (as Cd)	mg/L	APHA 22nd Ed.2012,3500-Cd, 3-105	2.0	N.D.				
13	Mercury (as Hg)	mg/L	APHA 22 nd Ed.2012,3112-B, 3-23	0.01	N.D.				
14	Arsenic (as As)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.2	N.D.				
15	Selenium (as Se)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.05	N.D.				
16	Total Chromium (as Cr)	mg/L	APHA 22md Ed.2012,3500-Cr-B,3-69	2.0	N.D.				
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22nd Ed.2012, 5520-B,5-17	250	144.0				
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025(Part 44):1993,RA 2003	30	24.2				
19	Oil & Grease	mg/L	IS 3025(Part 39):1991,RA 2003,	10.0	N.D.				
20	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	IS 3025(Part 43):1992,RA 2003	1.0	N.D.				

Note: mg/lit.:milligram per liter, N.D. - Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- The report for publication, arbitration or as legal dispute is forbidden
- Test sample will be retained for 15 days after issue of test report unless

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---End of the test report-----

AN ISO: 9001:2015 / ISO: 14001:2015 / ISO 45001:2018 CERTIFIED LABORATORY



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Name & Address Of The O	rustomer		REPORT NO	UES/TR/21-22/0055 UES/21-22/W/051 26/04/2021			
HINDALCO INDU	STRIES LIMITED,						
GARE PALMA - IV	A CONTRACTOR OF THE CONTRACTOR		DATE OF SAMPLING				
MILUPARA U/G C VILLAGE – MILUP	OAL MINE, PARA, BLOCK-TAMNAR,		DATE OF REPORT		03/05/2021		
DISTT RAIGARI	I (C.G.) 496107		DATE OF ANALYSIS	START: 28/04/2021 END: 01/05/202			
		SAMPLI	E DETAILS				
SAMPLE TYPE	WASTE WATER		ORDER /REFERENCE:		M/PO/SRV/2021/0044, DTD. 21-AUG-2020		
CUSTMER SAMPLE ID	STP OUTLET, PORTACABIN		SAMPLE CONDITION AT R	ECEIPT	OK		
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY		CHEMIST		
SAMPLING PROCEDURE	IS:3025(PART I):1987 RA 2003 22ND ED. 2012, 1060-B, 1-39	; APHA	QUANTITY RECEIVED	5 LTR			

	TEST REPORT								
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT				
1	Colour	Hazen	APHA 22 nd Ed. 2012,2120-B,2-5	See 6 of Annexure-I	<1				
2	Odour	-	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable				
3	Temperature	°c	AFHA 22 nd Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.4				
4	PH	-	APHA 22°d Ed.2012,4500-H'-B,4-92	5.5 to 9.0	7.28				
5	Total Residual Chlorine	mg/L	APHA 22°4 Ed.2012,4500-C1-G,4- 69	1.0	N.D.				
6	Total Suspended Solids	mg/L	APHA 22 nd Ed.2012,2540- D, 2-66	100	22.0				
7	Dissolved Phosphate (as P)	mg/L	APHA 22 nd Ed.2012,4500-P-C,4-153	5.0	0.21				
8	Fluoride (as F)	mg/L	APHA 22 ^{ad} Ed.2012,4500-F-B &D,4- 84 & 87	2.0	0.12				
9	Lead (as Pb)	mg/L	APHA 22 ^{hd} Ed.2012,3111-B, 3-18	0.1	N.D.				
10	Zinc (as Zn)	mg/L	APHA 22 ^{ed} Ed.2012,3111-B, 3-18	5.0	0.06				
11	Copper (as Cu)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	3.0	N.D.				
12	Cadmium (as Cd)	mg/L	APHA 22nd Ed.2012,3500-Cd,3-105	2.0	N.D.				
13	Mercury (as Eg)	mg/L	APHA 22 nd Ed.2012,3112-B, 3-23	0.01	N.D.				
1.4	Arsenic (as As)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.2	N.D.				
15	Selenium (as Se)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.05	N.D.				
16	Total Chromium (as Cr)	mg/L	APHA 22 nd Ed.2012,3500-Cr-B,3-69	2.0	N.D.				
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 nd Ed.2012, 5520-B,5-17	250	74.0				
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993,RA 2003	30	6.8				
19	Oil & Grease	mq/L	IS 3025 (Part 39):1991,RA 2003	10	N.D.				
20	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	IS 3025 (Part 43):1992,RA 2003	1.0	N.D.				

REMARKS: mg/lit.: milligram per liter, N.D.-Not Detected.

Terms & conditions

The report for publication, arbitration or as logal dispute is forbidden.
Test sample will be retained for 15days after issue of test report galaxy of the state of the strength of th

on otherwise agreed with customer.

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End of the test report-----



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TO, HINDALCO INDUS			REPORT NO LAB REF NO	UES/TR/21-22/0446 UES/21-22/W/0546			
GARE PALMA - I\			DATE OF SAMPLING	29/05/2021			
MILUPARA U/G C			DATE OF RECEIPT		30/05/2021 03/06/2021		
DISTT RAIGARI	ARA, BLOCK-TAMNAR, 1 (C.G.) 496107		DATE OF REPORT		START: 31/05/2021 END: 03/06/202		
		SAMP	LE DETAILS				
SAMPLE TYPE	WASTE WATER		ORDER /REFERENCE:		M/PO/SRV/2021/0044, DTD. 21-AUG-2020		
CUSTMER SAMPLE ID	STP OUTLET, PORTACABIN		SAMPLE CONDITION AT REC	EIPT	OK		
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SAMPLE COLLECTED BY		CHEMIST			
SAMPLING PROCEDURE	QUANTITY RECEIVED		5 LTR				

			TEST REPORT		
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PARTA INLAND SURFACE WATER	RESULT
1	Colour	Hazen	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-1	<1
2	Odour	-	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable
3	Temperature	°c	APHA 22" Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.6
4	pH	-	APHA 22nd Ed.2012,4500-H-B,4-92	5.5 to 9.0	7.42
5	Total Residual Chlorine	mg/L	APHA 22 nd Ed.2012,4500-C1-G,4- 69	1.0	N.D.
6	Total Suspended Solids	mg/L	APHA 22 nd Ed.2012,2540- D, 2-66	100	24.0
7	Dissolved Phosphate (as P)	mg/L	APHA 22 nd Ed.2012,4500 P-C,4-153	5.0	0.21
8	Fluoride (as F)	mg/L	APHA 22 nd Ed.2012,4500-F-B &D,4- 84 & 87	, 2.0	0.12
9	Lead (as Pb)	mg/L	APHA 22nd Ed.2012,3111-B, 3-18	0.1	N.D.
10	Zinc (as Zn)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	5.0	0.09
11	Copper (as Cu)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	3.0	N.D.
12	Cadmium (as Cd)	mg/L	APHA 22" Ed.2012, 3500-Cd, 3-105	2.0	N.D.
13	Mercury (as Eg)	mg/L	APHA 22 nd Ed.2012,3112-B, 3-23	0.01	N.D.
14	Arsenic (as As)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.2	N.D.
15	Selenium (as Se)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.05	N.D.
16	Total Chromium (as Cr)	mg/L	APHA 22 nd Ed.2012,3500-Cr-B,3-69	2.0	N.D.
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 nd Ed.2012, 5520-B,5-17	250	88.0
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993,RA 2003	30	6.1
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,RA 2003	10	N.D.
20	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	IS 3025 (Part 43):1992,RA 2003	1.0	N.D.

REMARKS: mg/lit.: milligram per liter, N.D.-Not Detected.

Terms & conditions

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Test sample will be retained for 15days after issue of test report unless otherwise agreed with customer.

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	STRIES LIMITED, 1/5, OAL MINE, PARA, BLOCK-TAMNAR,		REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT	UES 27/ 28/ 03/	/TR/21-22/0 /21-22/W/10 06/2021 06/2021 07/2021	06
DISTT RAIGARI	1 (6.6.) 490107	SAMP	DATE OF ANALYSIS	STAR	T:29/06/2021	END: 02/07/2021
SAMPLE TYPE	WASTE WATER		ORDER /REFERENCE:		M/PO/SRV/2021 DTD, 21-AUG-2	
CUSTMER SAMPLE ID	STP OUTLET, PORTACABIN		SAMPLE CONDITION AT REC	EIPT	OK	
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SAMPLE COLLECTED BY		CHEMIST		
SAMPLING PROCEDURE	IS:3025(PART I):1987 RA 2003 22ND ED. 2012, 1060-B, 1-39	QUANTITY RECEIVED		5 LTR		

TEST REPORT							
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT		
1	Colour	Hazen	APHA 22 ^{mi} Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1		
2	Odour	-	APHA 22"Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable		
3	Temperature	°c	APMA 22 ^{a-1} Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.4		
4	PH	-	APHA 22"d Ed.2012,4500-H'-B,4-92	5.5 to 9.0	7.31		
5	Total Residual Chlorine	mg/L	APHA 22 nd Ed.2012,4500-C1-G,4- 69	1.0	N.D.		
6	Total Suspended Solids	mg/L	APHA 22 nd Ed.2012,2540- D, 2-66	100	26.0		
7	Dissolved Phosphate (as P)	mg/L	APHA 22 nd Ed.2012,4500-P-C,4-153	5.0	0.20		
8	Fluoride (as F)	mg/L	APHA 22 nd Ed.2012,4500-F-B &D,4- 84 & 87	2.0	0.16		
9	Lead (as Pb)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	0.1	N.D.		
10	Zinc (as En)	mg/L	APHA 22nd Ed.2012,3111-B, 3-18	5.0	0.08		
11	Copper (as Cu)	mq/L	APHA 22mf Ed.2012,3111-B, 3-18	3.0	N.D.		
12	Cadmium (as Cd)	mg/L	APHA 22 nd Ed.2012, 3500-Cd, 3-105	2.0	N.D.		
13	Mercury (as Hg)	mg/L	APHA 22 ^{id} Ed.2012,3112-B, 3-23	0.01	N.D.		
14	Arsenic (as As)	mg/L	APHA 22 ^{nl} Ed.2012,3114-C, 3-38	0.2	N.D.		
15	Selenium (as Se)	mg/L	APHA 22" Ed.2012,3114-C, 3-38	0.05	N.D.		
16	Total Chromium (as Cr)	mg/L	APMA 22 nd Ed.2012,3500-Cr-B,3-69	2.0	N.D.		
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22° Ed.2012, 5520-B,5-17	250	92.0		
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993,RA 2003	30	6.4		
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,RA 2003	10	N.D.		
20	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	IS 3025 (Part 43):1992,RA 2003	1.0	N.D.		

REMARKS: mg/lit.: milligram per liter, N.D.-Not Detected.

Terms & conditions

ITMS & CONGILIONS
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GARE PALMA - IV MILUPARA U/G C	STRIES LIMITED, V/5, OAL MINE, PARA, BLOCK-TAMNAR,	REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS	27/0 28/0 02/0	S/TR/21-22/1437 S/21-22/W/2066 /07/2021 /07/2021 /08/2021 WRT:28/07/2021 EMD:31/07/202		
		SAMP	LE DETAILS			
SAMPLE TYPE	PLE TYPE KASTE WATER		ORDER /REFERENCE:	M/PO/SNY/2021/0044, DTD: 21-AUG-2020		
CUSTNER SAMPLE ID STP OUTLET, PORTACADIN		SAMPLE COMMITTON AT RECEIPT		CK		
ACKING OF SAMPLE 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE SEALED		SAMPLE COLLECTED BY		CHROST		
SIMPLING PROCEDURE 18:3025 (PART 1):1987 RA 2003; APRA 22MD ED. 2012, 1060-H. 1-39			COMMITTY PROCEIVED 5 LTK			

	TEST REPORT						
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1988 [SCHEDULE-VI] PART-A INLAND SURFACE WAYER	RESULT		
1	Colour	Hazen	APHA 22 mgd. 2012,2120-B,2-6	See 6 of Annexure-1	<1		
2	Odour	-	APMA 22° Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable		
3	Temperature	"c	дрна 22 nd Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.0		
4	pli	-	APHA 22° Ed. 2012, 4500-H°-B, 4-92	5.5 to 9.0	7.38		
5	Total Residual Chlorine	mg/L	ADHA 22" Ed. 2012, 4500-C1-G, 4- 69	1.0	N.D.		
6	Total Suspended Solids	ng/L	ADHA 22** Ed.2012,2540- D, 2-66	100	22.0		
7	Dissolved Phosphate (as P)	mg/L	APHA 22 nd Ed.2012,4500-P-C,4-153	5.0	0.22		
В	Fluoride (as F)	mg/L	ADHA 22 ⁵³ Ed.2012,4500-F-B &D,4- 84 & 87	2.0	0.11		
9	Lead (as Ph)	mg/L	ADHA 22's Ed.2012,3111-B, 3-18	0.1	N.D.		
10	Zinc (as En)	ng/L	APRIA 22 rd Ed.2012,3111-B, 3-18	-5.0	0.06		
11	Copper (as Cu)	ng/L	APHA 22 M Rd. 2012, 3111-8, 3-18	3.0	N.D.		
12	Cadmium (as Cd)	mg/L	APHA 22°d Ed.2012,3500-Cd.3-105	2.0	N.D.		
13	Mercury (as Hg)	mg/L	APHA 22 ^{ad} Ed. 2012, 3112-B, 3-23	0.01	N.D.		
14	Arsenic (as As)	mg/L	APHA 22 nd Ed.2012,3114=C, 3-18	0.2	N.D.		
15	Selenium (as Se)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0,05	N.D.		
16	Total Chronium (as Cr)	mg/L	APHA 22 ^{td} Ed.2012,3500-CE-5,3-69	2.0	N.D.		
17	Chemical Cwygen Demand (CCD)	ng/L	APMA 22** Ed.2012, 5520-8,5-17	250	84.0		
1.0	Biochemical Oxygen Demand (BCD)	ng/L	IS 3025 (Part 44):1993,8A 2003	30	8.8		
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991, RA 2003	10	N.D.		
20	Phenolic Compounds (as C ₂ H ₂ OH)	mg/L	IS 3025 (Part 43):1992,RA 2003	1.0	N.D.		

REMARKS: mg/lit.; milligrom per liter, N.D.-Not Detected.

Terms & conditions

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GARE PALMA - IV	STRIES LIMITED, V/5, COAL MINE, PARA, BLOCK-TAMNAR,		REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS	27/ 29/ 03/	JES/TR/21-22/2144 JES/21-22/W/3517 27/08/2021 29/08/2021 03/09/2021 ETART:29/08/2021 END:02/09/202		
	757/25 DE 1	SAMP	LE DETAILS	Date of		1 200,007,2022	
SAMPLE TYPE	more natur		ORDER /REFERENCE:	M/PO/SRV/2122/0049, DTD. 24-JULY-2021			
CUSTMER SAMPLE ID STP OUTLET, PORTACABIN		SAMPLE CONDITION AT RECEIPT		OK			
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE		SAMPLE COLLECTED BY		CHEMIST		
SAMPLING PROCEDURE 15:3025(PART 1):1987 RA 2003; APHA 22ND ED. 2012, 1060-B, 1-39			QUANTITY RECEIVED 5 LTR		5 LTR		

	TEST REPORT						
SR. NO.	O. PARAMETER UNIT		METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT		
2	Colour	Hazen	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-1	<1		
	Odour	-	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable		
3	Temperature	°C	APHA 22 nd Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water tomperature	24.6		
4	PH	-	APHA 22 nd Ed.2012,4500-H°-B,4-92	5.5 to 9.0	7.24		
5	Total Residual Chlorine	mg/L	APHA 22nd Ed.2012,4500-C1-G,4- 69	1.0	N.D.		
6	Total Suspended Solids	mg/L	APHA 22 nd Ed.2012,2540- D, 2-66	100	22.0		
7	Dissolved Phosphate (as P)	mg/L	APHA 22nd Ed.2012,4500-P-C,4-153	5.0	0.18		
8	Fluoride (as F)	mq/L	APHA 22nd Ed. 2012, 4500-F-B &D, 4-84 & 87	2.0			
9	Lead (as Pb)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	0.1	0.10		
10	Zinc (as Zn)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	5.0	N.D.		
11	Copper (as Cu)	mq/L	APHA 22 nd Ed.2012,3111-B, 3-18	3.0	0.08		
12	Cadmium (as Cd)	mg/L	APHA 22nd Ed.2012,3500-Cd,3-105		N.D.		
13	Mercury (as Hg)	mg/L	APHA 22nd Ed.2012,3112-B, 3-23	2.0	N.D.		
14	Arsenic (as As)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	N.D.		
15	Selenium (as Se)	mq/L	APHA 22nd Ed.2012,3114-C, 3-38	0.2	N.D.		
16	Total Chromium (as Cr)	mg/L	APHA 22 ^{md} Ed.2012,3500-Cr-B,3-69	0.05	N.D.		
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 nd Ed.2012, 5520-B,5-17	250	54.0		
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993,RA 2003	30	8.6		
19	Oil & Grease	mq/L	IS 3025 (Part 39):1991,RA 2003				
20	Phenolic Compounds (as C _c H ₅ OH)	mg/L	IS 3025 (Part 43):1992,RA 2003	1.0	N.D.		

REMARKS: mg/lit.: milligram per liter, N.D.-Not Detected.

Terms & conditions

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 1 Sdays after issue of test report unless others.
This is for information as the party bas asked for above test(s) only.

Phoely 2 PREPARED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY



HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph: 0771 - 4027777 | Email: ultimatenviro@gmail.com

Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

to Name & Address Of The Customer HINDALCO INDUSTRIES LIMITED, GARE PALMA - IV/5, MILUPARA U/G COAL MINE, VILLAGE - MILUPARA, BLOCK-TAMNAR DISTT. - RAIGARH (C.G.) 496107

Report No	UES/TR/21-22/2352				
Lab Ref No	UES/21-22/W/4535				
Date Of Sampling	24/09/2021				
Date Of Receipt	25/09/2021				
Date Of Report	02/10/2021				
Date Of Analysis	Start:25/09/2021 End:30/09/20				

SAMPLE DETAILS							
Sample Type	WASTE WATER		Customer Ref. No. & Date M/PO/SRV/2122/004 DTD.:24-JULY-2021				
Customer Sample ID	STP OUTLET, PORTA CABIN		Sample Condition At Receipt	Ok			
Packing Of Sample	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	Sealed	Sample Collected By	Laboratory	r Chemist		
Sampling Procedure IS:3025(PART-I):1987 RA 2003; APHA 22 ND ED. 2021, 1060-B, 1-39			Quantity Received	Approx. 51	itr.		

	TEST REPORT							
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	SUMP WATER			
1	Colour	Hazen	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1			
2	Odour	-	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable			
3	Temperature	-c	APHA 22ndEd.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.8			
4	pH	-	APHA 22nd Ed.2012,4500-H'-B,4-92	5.5 to 9.0	7.11			
5	Total Residual Chlorine	mg/L	APHA 22 nd Ed.2012,4500-Cl-G, 4 - 69	1.0	N.D.			
6	Total Suspended Solids	mg/L	APHA 22 nd Ed.2012,2540- D, 2-66	100	20.0			
7	Dissolved Phosphate (as P)	mg/L	APHA 22 nd Ed.2012,4500-P-C, 4-153	5.0	N.D.			
8	Fluoride (as F)	mg/L	APHA 22 nd Ed.2012,4500-F-B&D,4-84 & 87	2.0	0.2			
9	Lead (as Pb)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	0.1	N.D.			
10	Zinc (as Zn)	mg/L	APHA 22nd Ed.2012,3111-B, 3-18	5.0	0.08			
11	Copper (as Cu)	mg/L	APHA 22nd Ed.2012,3111-B, 3-18	3.0	N.D.			
12	Cadmium (as Cd)	mg/L	APHA 22nd Ed.2012,3500-Cd, 3-105	2.0	N.D.			
13	Mercury (as Hg)	mg/L	APHA 22nd Ed.2012,3112-B, 3-23	0.01	N.D.			
14	Arsenic (as As)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.2	N.D.			
15	Selenium (as Se)	mg/L	APHA 22 ^{od} Ed.2012,3114-C, 3-38	0.05	N.D.			
16	Total Chromium (as Cr)	mg/L	APHA 22nd Ed.2012,3500-Cr-B,3-69	2.0	N.D.			
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 nd Ed.2012, 5520-B,5-17	250	64.0			
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025(Part 44):1993,RA 2003	30	9.2			
19	Oil & Grease	mq/L	IS 3025(Part 39):1991,RA 2003,	10.0	N.D.			
20	Phenolic Compounds (as C ₅ H ₅ OH)	mg/L	IS 3025(Part 43):1992,RA 2003	1.0	N.D.			

Note: mg/lit.:milligram per liter, N.D. - Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

02/10/21

PREPARED BY

The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be refained for 15 days after issue of test report unless otherwise agreed with custom
This is for information as the party has asked for above test(s) only.

---End of the test report-

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

Annexure – 6AAA

Sewage Treatment Plant



Annexure - 7



छत्तीसगढ़ पर्यावरण संरक्षण मंडल

पर्यावास भवन, नार्थ ब्लॉक, सेक्टर—19 नवा रायपुर अटल नगर, रायपुर (छ.ग.) 492002 ई—मेल— hocecb@gmail.com

क्रमांक **९**३९% मुख्या. / वैज्ञा. / छ.ग.प.सं.मं. / २०२१ नवा रायपुर अटल नगर, दिनांक **/**‡/ 8 / २०२१ प्रति,

श्री अनुराग श्रीवास्तव,

मार्टनर,

मेसर्स अल्टीमेट इन्वायरोलाइटिकल सॉल्यूशन्स, 272—एच.डी.डी. फेस—3, कबीर नगर, रिंग रोड नं. 2, जिला—रायपुर (छ.ग.)

विषय:- प्रदेश में संचालित निजी प्रयोगशाला को छत्तीसगढ़ पर्यावरण संरक्षण मंडल द्वारा प्रदत्त मान्यता के संबंध में।

संदर्भ :-

1. आपका आवेदन कमांक UES/2021-22/0042, दिनांक 31 / 07 / 2021.

2. मंडल मुख्यालय का पत्र क्रमांक 5357, दिनांक 24/09/2019.

 भारत शासन, पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय का पत्र क्रमांक F No. Q-15018/07/2017-CPW, दिनांक 21/02/2020.

---:00:----

कृपया उपरोक्त विषयांतर्गत संदर्भित पत्रों का अवलोकन करें। लेख है कि मंडल मुख्यालय द्वारा पत्र कमांक 5357 दिनांक 24/09/2019 के माध्यम से आपके निजी प्रयोगशाला को जल (प्रदूषण निवारण तथा नियंत्रण) अधिनियम, 1974 की धारा 17 (2) एवं वायु (प्रदूषण निवारण तथा नियंत्रण) अधिनियम, 1981 की धारा 17 (2) के अंतर्गत मान्यता प्रदान की गई थी, जिसकी वैधता दिनांक 31/07/2021 तक थी। संदर्भ—3 पर उल्लेखित पत्र के अनुक्म में छत्तीसगढ़ पर्यावरण संरक्षण मंडल द्वारा जल (प्रदूषण निवारण तथा नियंत्रण) अधिनियम, 1974 की धारा 17 (2) एवं वायु (प्रदूषण निवारण तथा नियंत्रण) अधिनियम, 1981 की धारा 17 (2) के अंतर्गत् प्रदत्त मान्यता की वैधता दिनांक 25/06/2022 तक बढ़ाई जाती है। कृपया आपकी प्रयोगशाला में प्रचालकों की अद्यतन विश्लेषण दर सूची से मंडल को अवगत कराते हुए इस पत्र की पावती भेजे।

hiead Office C.G. Environment Conservation Board Janyawas Bhawan, North Block, Soc-19 Atal Nagar, Distl-Raiour (C.G.) 452002

सदस्य सचिव छन्तीसगढ़ पर्यावरण संरक्षण मंडल, नवा रायपुर अटल नगर, जिला–रायपुर (छ.ग)

पृ.क्रमांक /मुख्या./वैज्ञा./छ.ग.प प्रतिलिपि:– क्षेत्रीय अधिकारी क्षेत्रीय

/मुख्या./वैज्ञा./छ.ग.प.सं.मं./2021 नवा रायपुर अटल नगर, दिनांक / /2021 क्षेत्रीय अधिकारी, क्षेत्रीय कार्यालय, छत्तीसगढ़ पर्यावरण संरक्षण मंडल, रायपुर / भिलाई—दुर्ग / बिलासपुर / कोरबा / रायगढ़ / अंबिकापुर / जगदलपुर की ओर सूचनार्थ एवं आवश्यक कार्यवाही हेत् प्रेषित।

सदस्य सचिव

छत्तीसगढ़ पर्यावरण संरक्षण मंडल, नवा रायपुर अटल नगर, जिला—रायपुर (छ.ग)

Cid ServiteS Westrop Hinds Latter 1.4

F. No. Q-15018/07/2017-CPW Government of India Ministry of Environment, Forest and Climate Change (CP Division)

Agni-233, Indira Paryavaran Bhavan, Jor Bagh Road, New Delhi – 110 003. Dated, the 21st February, 2020

To

M/s Ultimate Envirolytical Solution HDD 272, Phase-3 Near J.P Chawk Kabir Nagar, Ring Road-2 Raipur-492099, Chhattisgarh

Subject: -Recognition of M/s Ultimate Envirolytical Solutions, HDD 272, Phase-3, Near J.P Chawk Kabir Nagar, Ring Road-2, Raipur 492099, Chhattisgarh as Environmental Laboratory under the Environment (Protection) Act. 1986.

Sir.

I am directed to refer to your application dated:01.09.2017 for recognition of your laboratory under Environment (Protection) Act, 1986. Based on the recommendations of the Expert Committee for Recognition of Environmental Laboratories in its 61st meeting held on 03.12.2019 and your acceptance of the revised terms and conditions at Annexure-III & IV of the Guidelines for recognition of Environmental Laboratories, this Ministry approves of recognition of M/s Ultimate Envirolytical Solutions, HDD 272, Phase-3, Near J.P Chawk Kabir Nagar, Ring Road-2, Raipur 492099, Chhattisgarh, as shall be notified in the Gazette of India. Considering the current validity of mandatory accreditations/certifications of the laboratory, this shall be valid up to 25.06.2022.

- 2. As sought in your aforementioned application M/s Ultimate Envirolytical Solutions, Chhattisgarh may undertake the following tests:
- (i) Physical Tests: Conductivity, Colour, pH, Fixed & volatile solids, Total solids, Total dissolved solids, Total suspended solids, Turbidity, Temperature, Velocity & discharge measurement of industrial effluent stream, Salinity, Settleable solids and Sludge volume index (SVI).
- (ii) Inorganic (General & Non-metallic): Acidity, Alkalinity, Ammonical nitrogen, Chloride, Chlorine residual, Dissolved oxygen, Fluoride, Total hardness, Total kjehldal nitrogen (TKN), Nitrite nitrogen, Nitrate nitrogen, Phosphate, Sulphate, Chlorine demand, Iodine and Silica.
- (iii) Inorganic (Trace metals): Boron, Cadmium, Calcium, Chromium Total, Chromium Hexavalent, Copper, Iron, Lead, Magnesium, Mercury, Nickel, Potassium, Sodium, Sodium absorption ratio, Zinc, Arsenic, Barium, Manganese and Tin.
- (iv) Organics (General) and Trace Organics: Bio-chemical oxygen demand (BOD), Chemical oxygen demand (COD), Oil & grease, Phenol, Pesticide ((Organo-chlorine, Organo nitrogen-phosphorous), Poly-chlorinated biphenyl (PCB's) each, Polynuclear aromatic hydrocarbon (PAH) each and Organic Carbon (in Solid).
- (v) Microbiological Tests: Total Coliform, Faecal Coliform, Faecal streptococci, E. coli, Total Plate count.
- (vi) Toxicological Tests: Bioassay method for evaluation of toxicity using fish, Bio-accumulation, bio magnification and bio-transformation studies.
- (vii) Biological Tests: Macrophytic identification, Planktonic identification count and Chlorophyll.
- (viii) Hazardous Waste: Corrosivity, Ignibility (Flash Point) and Measurement of heavy metals/pesticides in the waste /leachate.
- (ix) Soil/ Sludge/ Sediment and Solid Waste: Boron, Cation Exchange Capacity (CEC), Electrical Conductivity, Nitrogen available, Organic carbon/ matter (chemical method), pH, Phosphorous (available), Phosphate (ortho), Phosphate (total), Potassium, SAR in soil extract, Sodium, Soil moisture, TKN, Calorific value, Bicarbonate, Calcium, Calcium carbonate, Chloride, Bicarbonate, Calcium, Calcium carbonate, Chloride, Heavy metal, Magnesium, Nitrate, Potash (available), Sulphate and water holding capacity.

- (x) Ambient Air/ Fugitive Emissions: Nitrogen dioxide (NO₂), Sulphur dioxide (SO₂), Total Suspended particulate matter, Respirable suspended particulate matter (PM₁₀), Ammonia, Chlorine, Fluoride, Lead.
- (xi) Stack Gases/ Source Emission: Particulate matter, Sulphur dioxide, Velocity & flow, Carbon dioxide, Carbon monoxide, Temperature, Oxygen, Oxides of nitrogen, Acid mist, Ammonia, Fluoride (Particulate), Fluoride(Gaseous) and Hydro-chloric acid.
- (xii) Noise Level: Noise level measurement (20 to 140 dba), Ambient Noise & Source-specific Noise.
- (xiii) Meteorological: Ambient temperature, Wind direction, Wind speed, Relative Humidity and Rainfall.
- 3. Further, the following analysts have been approved for recognition as Government Analysts.
 - (i) Mr. Anurag K. Shrivastava
 - (ii) Mr. Little Kumar Prajapati
 - (iii) Mr. Pramod Kumar Choubey
- 4. The laboratory shall compulsorily participate in the Analytical Quality Control (AQC) exercise conducted by the Central Pollution Control Board (CPCB) at least once a year to ascertain the capability of the laboratory and analyses carried out and shall submit quarterly progress reports to this Ministry.
- Periodic surveillance of the recognized environmental laboratory will be undertaken by this Ministry/ CPCB to assess its proper functioning, systematic operation and reliability of data generated at the laboratory.
- 6. It is also mandatory for the laboratory to have requisite accreditations of the NABL/ ISO 9001 and OHSAS and its renewal as per accreditation rules. This recognition is subject to such accreditations and renewal, as applicable. The laboratory may approach this Ministry for further extension of validity of recognition after renewal of the mandatory accreditations/ certification concerned. Such application for extension of validity may be submitted to this Ministry in due advance, preferably before 6 months.
- 7. The laboratory should compulsorily follow the accepted Terms & Conditions. In case of serious non-compliance of any of the Terms and Conditions, the laboratory may be black-listed for a minimum period of two years and civil/ criminal proceedings, as applicable, may be initiated for performing functions on behalf of the Government in an unauthorized manner.

Yours faithfully,

(Dr. Susan George K.)

Scientist 'D' Tel. No. 011-24695327 Email: susan.george@nic.in

Copy to:

- Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, New Delhi - 110032.
- Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhawan, North Block, Sector-19, Atal Nagar, Dist-Raipur, Chattisgarh.
- Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (WCZ), Ground Floor, East Wing, New Secretariat Building, Civil Lines, Nagpur-440001.
- 4. Director, IT Division, MoEF&CC, New Delhi-110003; for uploading on MoEF&CC website





National Accreditation Board for Testing and Calibration Laboratories

CERTIFICATE OF ACCREDITATION

ULTIMATE ENVIROLYTICAL SOLUTIONS

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

HDD 272, PHASE-III, KABIR NAGAR, RAIPUR, CHHATTISGARH, INDIA

in the field of

TESTING

Certificate Number:

TC-6065

Issue Date:

27/10/2021

Valid Until:

26/10/2023

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Identity: ULTIMATE ENVIROLYTICAL SOLUTIONS

Signed for and on behalf of NABL



N. Venkateswaran Chief Executive Officer

Annexure - 8

Environmental Expenditure Details for FY 2021-22 (April 2021 to September 2021)

M/s Hindalco Industries Limited, Gare Palma Mines IV/5

Particulars	Amount (Lakh)
Water Quality Management	8.48
Air Quality Management	6.41
Plantation, Green Belt Development	1.05
Others	2.64
Total	18.58