

Letter No.: HIL/EC/GP- IV/4/II/2021 -22/120

20<sup>th</sup> May, 2022

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 Gare Palma IV/4 Coal Mines of Hindalco Industries Limited, Village — Banjikhol, Tehsil — Tamnar, District — Raigarh, Chhattisgarh.

#### Respected Sir,

This has reference to the Environment Clearance Letter no. – J-11015/183/2010- IA –II. (M) dated 16.04.2015 (Transferred in favour of HIL) & Amendment in EC for production capacity i.e. Opencast: 0.56 MTPA & Under Ground: 0.44 MTPA dated 24.05.2019.

We are submitting herewith the Half Yearly EC Compliance Report along with Environmental Monitoring Report (Hard & Soft) for the period from **October 2021 to March 2022** for your kind perusal please.

The receipt of the report may kindly be acknowledged.

Yours faithfully,

For Hindalco Industries Limited,

Govind Kumar

(Mine Agent GP IV/4 CM)

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 STIPULATED CONDITIONS OF ENVIRONMENTAL CLEARANCE (EC) ACCORDED TO GARE PALMA IV/4 COAL MINE VIDE LETTER No.— J-11015/183/2010-IA—II.(M) DATED 16.04.2015 (TRANSFERRED IN FAVOUR OF HIL) & AMENDMENT IN EC FOR PRODUCTION CAPACITY I.E. OPENCAST: 0.56 MTPA & UNDER GROUND: 0.44 MTPA DATED 24.05.2019.

Sr. No.	Stipulated Conditions	Compliance Statement
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
	11015/183/2010-IA.II (M) dated 12 <sup>th</sup> March,	
	2013 shall remain unchanged.	
3	The successful bidder shall be liable, if any, for	Noted
	any 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	Noted
	of all court directions, if any.	

### ON STIPULATED CONDITIONS OF ENVIRONMENTAL CLEARANCE (EC) ACCORDED TO GARE PALMA IV/4 COAL MINE VIDE LETTER No. – J-11015/183/2010-IA–II.(M) DATED 12.03.2013

Sr. No.	Stipulated Conditions	Compliance Statement
Α.	SPECIFIC CONDITIONS	
i	The Maximum production from the mines shall not exceed beyond that for which environmental clearance has been granted for i.e. 0.48 MTPA to 1.0 MTPA of which 0.4 MTPA OC and 0.6 MTPA UG in ML area of 701.512 ha)	Being Complied.  Amendment has been done in this stipulated condition by MoEF & CC dated 24.05.2019 (Letter No. J-11015/183/2010-IA–II.(M) for the production capacity i.e. Open cast - 0.56 MTPA and Under Ground – 0.44 MTPA, Total capacity – 1 MTPA instead of 0.4 MTPA OC and 0.6 MTPA UG.  Amendment Copy of EC is attached as Annexure – No. 1

		2021 to March 202 as prescribed in th	October 2021 to March 2022)  0.275 MT (Million Tons)
		Total Coal Produc 2022): 0.559 MT (N	ction from OC & UG (2021 - Million Tons)
		Open Cast: Under Ground:	0.559 MT (Million Tons) 0.00 MT (Million Tons)
		March 2022 subm	ical return for the month of nitted to The Coal Controller GOI Kolkata dated <b>04/04/2022</b> exure No. 2
ii	The calendar plan should be uploaded on MOEF website.	production from F OC & 0.44 MTPA for The production wi	II be within the limit of above ed calendar year quantities
		Mining calendar pl	lan for FY 22-23:
		Open Cast: Under Ground:	0.56 MT (Million Tons) No proposal as of now
			will be any change in calendar be intimated to MoEF & CC.
iii	The coal transportation by road is up to 270 km at Raipur by road presently with tarpaulin covered trucks and partially by rail up to Bhupdevpur. After new siding comes up which is approximately 3 km away for changing over to rail transport. The coal transportation by road should be by mechanically covered trucks. The	This particular con as per Vesting ord GOI, (vide vesting dated 23rd March captive power pla (Distance - 160 km) and Lapar	ot Applicable. Indition is not applicable to us, ler issued by Ministry of Coal, gorder No. 104/16/2015/NA 2015) Coal is being used in the lant of HIL located at Hirakud loga (Distance - 130 km) District a and mode of transportation is

	mode of transportation shall be	by road. We are transporting the coal by road
iv	shifted to by rail by 2017.  Karanj should be deleted from the list of native species for plantation program.	through tarpaulin covered trucks.  Complied.  Karanj will not be planted in mining area.
V	Rs. 5/T of coal/annum till the end of life of project with the escalation factor of coal production.	Being Complied.  As per condition Rs. 5 /T of coal /annum is being utilized under CSR activities & Sustainability. Expenditure details from October 2021 to March 2022 is enclosed as Annexure No. – 3
vi	No external OB dump will be left after mine operation and shall be backfilled in the mine void.	Being Complied.  The OB dumping is being done as per the approved Mining Plan only.
vii	The proponent shall take necessary action on the issues raised during public hearing.	Being Complied.  A separate budget for the CSR & Sustainability is being maintained.
viii	The coal will be used in existing steel plant of proponent.	Not Applicable. This particular condition is not applicable to us, as per Vesting order by Ministry of Coal, GOI, Coal is being used in the captive power plant of HIL located at Hirakud and Lapanga, District Sambalpur, Odisha.
ix	The Mine Planning is done in such manner that underground mining is proposed below forest land and opencast mining under Government waste land /agriculture land. Hence tree cutting from forest land is not proposed during expansion proposal. However if required plantation will be done 10 times of tree felling in the project affected area.	Being Complied.  Mining is being done in such manner that underground mining is being done below forest land and opencast mining is being done under Government waste land /agriculture land. Planation in the mine lease area is being carried out @2500 plant/ha. Total 99821 nos. local plants species have been planted till date in mine lease area including OB dump area. Plantation details are enclosed as Annexure- 4
х	Kelo river and Bendra Nallah shall not be disturbed.	Being Complied.
хi	External OB dump of 0.67 million cubic meters will be created as reported in closure plan of first year. This external dump will be re handled and backfilled in subsequent years. There will be no external dump left after the mine operation.	Being Complied. The OB dumping is maintained as per the provisions of approved Mining Plan only.

xii	Biological reclamation of all external	Being Complied.
	dumps will be done progressively	The Top soil conservation and use are successive
	after leveling these dumps. This will	and periodic activities during mining operation.
	provide stability and prevent soil	In the FY 21 – 22 approx. <b>764673 cubic meter</b> of
	erosion from dumps. The total top soil	the top soil has been generated, approx. <b>535271</b>
	generated (1.14 m.cum B) during the	cubic meter has been spread/used on OB Dumps
	development of mine will be stacked	(Banjikhol & Bankheta) for reclamation, slope
	separately in a soil stack pile in	stabilization, green belt development & approx.
	between the pit and the surface dump	<b>229402</b> cubic meter stored for further uses in the
	over an area of 7.12 Ha.	mine area.
xiii	The report Titled " Flora and Fauna	Noted.
	and conservation plan for endangered	HIL will comply with mitigative measure as
	species of Gare-IV/8 coal block	suggested by competent authority if any in this
	approved by The PCCF (Wildlife) of	regard in future also.
	Chhatisgarh, dated 22.11.2011 states	
	that there is no national park, tiger reserve, eco-sensitive zones within 15	
	km radius. It was informed that this	
	area is neither affected by elephant	
	corridor exists. However, there are	
	occasional presence of elephants and	
	other wild lives.	
xiv	A Wildlife Conservation Plan for the	Noted.
	conservation and protection of	Rs. 1.0 crore has been deposited to state forest
	wildlife in the study area has been	department by the prior allottee against Wildlife
	approved at a cost of Rs. 1.0 crore and	conservation plan. Company will comply with
	shall be implemented by the	mitigative measure as suggested by competent
	proponent in consultation with	authority if any in this regard in future also.
	Department of Forest and Wildlife, Govt. of Chhattisgarh. The WLCP shall	
	_	
1	be comprise of components of habitat	
	be comprise of components of habitat improvement and conservation of	
	be comprise of components of habitat	
	be comprise of components of habitat improvement and conservation of biodiversity, provision of water holes,	
	be comprise of components of habitat improvement and conservation of biodiversity, provision of water holes, and augmenting water bodies,	
	be comprise of components of habitat improvement and conservation of biodiversity, provision of water holes, and augmenting water bodies, nursery and plantation of species of	
	be comprise of components of habitat improvement and conservation of biodiversity, provision of water holes, and augmenting water bodies, nursery and plantation of species of natural food and fodder found in the natural habitat salt licks, measures for the protection against forest fires and	
	be comprise of components of habitat improvement and conservation of biodiversity, provision of water holes, and augmenting water bodies, nursery and plantation of species of natural food and fodder found in the natural habitat salt licks, measures for the protection against forest fires and poaching, awareness campaign of	
	be comprise of components of habitat improvement and conservation of biodiversity, provision of water holes, and augmenting water bodies, nursery and plantation of species of natural food and fodder found in the natural habitat salt licks, measures for the protection against forest fires and poaching, awareness campaign of villagers in the study area and	
	be comprise of components of habitat improvement and conservation of biodiversity, provision of water holes, and augmenting water bodies, nursery and plantation of species of natural food and fodder found in the natural habitat salt licks, measures for the protection against forest fires and poaching, awareness campaign of villagers in the study area and compensation in case of man animal	
	be comprise of components of habitat improvement and conservation of biodiversity, provision of water holes, and augmenting water bodies, nursery and plantation of species of natural food and fodder found in the natural habitat salt licks, measures for the protection against forest fires and poaching, awareness campaign of villagers in the study area and	

	Plan including budgetary provision of various activities and status of expenditure shall be regularly, uploaded on the website of the forest and wildlife Department of Government of Chhattisgarh and of the project proponent and the status shall be regularly reported to this Ministry and the MoEF Regional Office, as part of the compliance report.	
xv	As per the approved plan of the Flora and Fauna and Conservation plan for endangered species of Gare IV/4 coal block" and recommended the PCCF (Wildlife), Rs. One crore be deposited, at one time. With the department of forest and wildlife, Govt. of Chhattisgarh for the implementation of the plan.	Rs. 1.0 crore has been deposited to state forest department by the prior allottee against Wildlife conservation plan. Company will comply with mitigative measure as suggested by competent authority if any in this regard in future also.
xvi	The project authority shall also participate in a Regional action plan of the State Government for the conservation of flora and fauna found within the study area, in addition to the above funds shall also contribute financially for implementation of RWLCP. Habitat development such as grassland/conservation measures along the migratory route/habitats of elephants found/ visiting the area shall form a part of the regional action plan.	The company will participate in regional action plan of the State Government for the conservation of flora and fauna of the area, as per directives of the authority. Company will comply with mitigative measure as suggested by competent authority if any in this regard in future also.
xvii	It will be used for growing plants along the fringes of the side roads and reclamation of external dump and backfilled area. The topsoil stockpile will be low height not exceeding 6 m and will be made use for concurrent filling without keeping the top soil for a long period.	Being Complied.  Topsoil is being used for green belt development along the road and the reclamation of OB Dump area. The topsoil stockpile is low in height not exceeding 6 m and this is being used and will be used for concurrent filling without keeping the top soil for a long period.
xviii	The OB dump for the South Quarry dump will be spread over 13.75 Ha. area on the south and eastern part of	Being Complied. The over burden is maintained as per approved mining plan.

	south quarry while the mining operation will start from north and advance towards south and west. Part of OB excavated from the mine from 1st year and part of 2nd year (3.91 Mm3) will be accommodation in it including top soil for afforestation. The height of dump achieved during 1st and 2nd year will be 6 m to 20 m respectively.	
xix	The O.B. left in external dump will be re handled and backfilled in the void after the extraction of coal is completed, this will make the operation of UG mining safe as no water will be logged in the quarry. The OB will be temporarily stored which primarily consist of sand stone and shale which does not contain any heavy metal. As per the reclamation plan, the entire OB will be re-handled and biologically reclaimed with local grass to minimize fugitive emission as well to control surface runoff.	Being Complied.  The over burden management is being done as per approved mining plan. As per the reclamation plan, the dumps will be biologically reclaimed with local species and grass to minimize fugitive emission as well as to control surface runoff. Backfilling has already started. Since the takeover by HIL no external dumping is being done OB generated annually is being backfilled in de-coaled area.  Aprox. 50,000 Nos of Vetiver grass plantation has been done in the year 2020 on OB Dump area near Patch "C" to provide the stability and prevent top soil erosion / Reduce the surface Run- off from OB dumps.
xx	Topsoil generated in the balance life of mine should be stacked properly with proper slope at earmarked site (s) and should not be kept active and shall be used for reclamation and development of green belt.	Being Complied.  Presently topsoil is being stacked properly and topsoil to be generated in the balance life of mine will be stacked properly with proper slope at earmarked site (s) and will not be kept active. The stocked topsoil is being & will be used for reclamation and development of green belt.
xxi	OB generated in the balance life of mine should be stacked at earmarked one external OB dumpsite within ML area. The ultimate slope of dump shall not exceed 28° Monitoring and management of reclaimed dumpsite should continue until the vegetation becomes self- sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional offices located at Bhubaneswar on yearly basis. The	Being Complied.  Since the takeover by HIL no external dumping is being done OB generated annually is being backfilled in de-coaled area.  Slope stability study has been carried out by ISM Dhanbad.  The ultimate slope of the dump is maintained within 28° and dumps are stabilized. Monitoring and management of reclaimed dump site is continuing and will continue until the vegetation becomes self – sustaining.

	area of OB dump should be reduced. The grass turfing should be done on OB dumps.	Now Raipur, Integrated Regional Office is looking after EC monitoring & compliances. Full co – operation has been extended to Regional Officer by furnishing requisite data information / monitoring reports.
xxii	Adequate numbers of sprinklers should be provided on both the side of road to minimize pollution.	Regular Water sprinkling on haul road is practiced through truck mounted water sprinklers (04 Nos) to prevent the fugitive dust emission. Also installed the fixed type of water sprinklers (30 nos) to control the fugitive dust emission in the mine area.  Photographs of truck mounted water sprinklers & fixed type of water sprinklers at GP IV/4 Coal Mines attached as Annexure – 4A
xxiii	Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted and maintained properly. Garland drains (size, gradient, length,) and sump capacity should be designed 50 % safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site.  Sump capacity should also provide adequate retention period to allow proper settling of silt material.	Being Complied. Catch drains are constructed to collect and drain water to sumps and ponds. Catch drains are provided with check dams to arrest slit and maintained properly.  The store water is used for spraying / sprinkling on haul roads and also for greenbelt development.  Garland drains are constructed to arrest discharge and runoff with slit and sedimentation surging into areas adjoining the periphery of OB dump.  HIL Constructed/Provided settling ponds:  a) At Banjikhol Mine (GP IV/4):  HIL has constructed 03 nos of Settling ponds of size 50m X 30m X 3m (each) with chemical dosing arrangement and sump with adequate capacity (for sedimentation) at Banjikhol for the mine seepage water collection, settling & treatment before discharge for the agriculture purpose (Photograph is attached as Annexure – 4AA).  Also HIL constructed an additional settling pond
		of size 30m X 10m X 1.5m (01Nos) to collect

		whole mine seepage water generated during the mining activities from Patch "C" specially in the rainy season for proper settling of mine seepage water before discharge (Photograph is attached as Annexure – 4AAA)  At Bankheta Mine (GP IV/4): At Bankheta, HIL constructed 02 nos of additional settling pond of size (50m X 40m X 5.0 m) for proper settling of mine seepage water generated from mining activities from Batch "B" before discharge for the agriculture purpose (Photograph is attached as Annexure – 4B)
xxiv	Dimension of retaining wall at the toe of the dumps and OB benches within the mine to check run —off and siltation should be based on rain fall data.	Being Complied.  In the Ist Phase we have constructed approx. 55 mtr. long gabion/retaining wall at the toe of permanent dump slope near Patch "C" in Banjikhol, GP IV/4 Coal Mines.  The Gabion /retaining walls had been made of GI wire net cages filled with stone boulders and anchored with angle iron as per specification.  Gabions provide vertical support to the bottom of the slope and help against sliding. Those also protect the toe of the reshaped OB dump.  We would also like to inform you that we have taken gabion/retaining wall construction activity at the toe of the OB dump as a continuous process & ensure you that it will be carried out as & when required in future also at mine site.  Photographs of constructed gabion/Retaining wall attached as Annexure — 4C & the Gabion wall construction/implementation report has already been submitted to MoEF & CC Nagpur Office dated 01st June 2021 the same is attached as Annexure 4CC for reference please.
xxv	Water sprinkling system (mist spray type) shall be provided to check fugitive emission from conveyor	Being Complied.  Water sprinkling arrangement has been maintained at all haul roads, loading and

	system, haulage roads and transfer points.	unloading points to minimize the fugitive dust emission.
xxvi	Fixed sprinkler shall be installed at pit top truck loading hoppers in all the three mines, siding for dust control during coal loading. Adequate numbers of sprinklers should be provided on both the sides of road to minimize dust pollution.	Being Complied. As per requirement, fixed type water sprinklers as well as truck mounted water sprinklers has been provided in the mines and other places.
xxvii	Drills should be wet operated only.	Being Complied. In coal mining wet drilling is under practice.
xxviii	An action plan for mine closure with details of area, depth, voids and details of abandoned mine should be submitted to the Ministry.	Complied.
xxix	Controlled blasting should be practiced with use of delay detonators. The mitigative measures for control of ground vibrations and to arrest the fly of rocks and boulders should be implemented.	Being Complied. Controlled blasting is practiced with use of delay detonators. Ground vibration generated due to the blasting is measured by seismographs regularly. The permissible limit for the ground vibration with respect to the structures is strictly followed. Measures are taken to minimized ground vibrations. Blasting is done during day time only.
xxx	Transportation shall be by covered trucks of higher capacity (25 –tons) and loading shall be by siding. Mechanically covered trucks should be provided for transportation of coal.	Being Complied.  Transportation is being done with tarpaulin covered trucks.
xxxi	Area brought under afforestation from the three mines shall be by planting native species in consultation with local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.	Being Complied.  Planation in the mine area is being carried out @2500 plant/ha. Total 99821 nos. local plants species have been planted till date including OB dump area. Plant Species i.e. Saja, Siris, Shisham, Yellow flametree, Kassod, Satvan, Acacia Mangium, Ganga Emli, Arjuna, Chirol, Gliricidia, Amla, Mango, guava, Kathal, Neem, Pipal, Ficus sp., Peltafarm, Nilgiri, Casia Samia, Gulmohar, Acacia Coliformis, Jamun, Kachnar, Baheda, Kachnar, Mahua & Saal etc. in consultation with DFO.

xxxii	Extensive plantation should be done	Being Complied.
	near agriculture area to avoid coal	Extensive plantation near agriculture land along
	dust pollution which may affect the	road side is being done and will be done in future
	productivity of crop.	to avoid coal dust pollution which may affect the
		productivity of crop.
xxxiii	Mine discharge water shall be treated	Being Complied.
	to meet the prescribed standards before discharge into the natural water course/agriculture. The quality of water discharge shall be monitored at the outer point and proper records maintained thereof and uploaded regularly on the company website.	a) At Banjikhol Mine (GP IV/4):  03 nos of Settling ponds with chemical dosing arrangement and sump with adequate capacity (for sedimentation) has been provided for the mine seepage water treatment before discharge for the agriculture purpose. The treated water quality analysis report from October 2021 to March 2022 is enclosed as Annexure No 5
		Photographs of Treatment Facility (enclosed above)
		Also HIL constructed an additional settling pond of size 30m X 10m X 1.5m (01Nos) to collect whole mine seepage water generated during the mining activities from Patch "C" specially in the rainy season for proper settling of mine seepage water before discharge (Photograph enclosed above)
		At Bankheta Mine (GP IV/4): At Bankheta, HIL constructed 02 nos of additional settling pond of size (50m X 40m X 5.0 m) for proper settling of mine seepage water generated from mining activities from Batch "B" before discharge for the agriculture purpose (Photograph enclosed above) The treated water quality analysis reports are being periodically furnished to CECB & uploaded regularly on the company website.
		Also installed 01 nos of COEQMS (Continuous Online Effluent Quality Monitoring System) at Bankheta, (At outlet of Siltation Pond No. 2) for real time monitoring of environmental quality parameters i.e. COD, BOD, TSS, PH & Temperature before discharge for the agriculture purpose photograph enclosed as <b>Annexure – 5 A</b>

xxxiv No ground water shall be used for mining activities; additional water required if any shall be met from mine water or by recycling /reuse of water from existing activities and from rainwater harvesting measures. The project authority shall meet water requirement of nearby village (s) in case the village wells go dry to dewatering of mine.

#### Being Complied.

For the mining activity only mine seepage water is being used after chemical dosing in settling ponds. To meet the water requirement of nearby villages company is providing treated water through pipeline/ drains and other mode for domestic (Non Drinking) and irrigation purpose.

XXXV

Regular monitoring of groundwater level and quality of the study area shall be carried out by establishing a network of existing wells construction of new peizometers. The monitoring for quality shall be done four times a year in pre-monsoon Monsoon (August) monsoon (November), and winter (January) seasons and for quality including Arsenic and Fluoride during the month of May. Data thus collected should be submitted to the Ministry of Environment & Forests and to the Central Pollution Control Board /SPCB quarterly within one month of monitoring. Rain water harvesting shall be undertaken in case monitoring of water table indicates a declining trend.

#### **Being Complied.**

Regular monitoring of groundwater level and quality of the area is being carried out by establishing а network of existing wells/Piezometers. The Ground water level (from October 2021 to March 2022) and quality Monitoring report of **Post-monsoon (November** 2021) and winter (January 2022) is attached as Annexure No.-6.

Non-working mine pit has been developed as rain water harvesting structure in the mines.

Quarterly monitoring report of Ground Water Level (from October 2021 to December 2021) and (from January 2022 to March 2022) & GW Quality Monitoring for the month of Postmonsoon (November 2021) and winter (January 2022) has been submitted to MoEF & CC, CPCB and CECB on quarterly within one month of monitoring basis. Attached as **Annexure No. – 7.** 

xxxvi

Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural pattern, water bodies, vegetation, structure, roads surroundings should be continued till movement ceases completely. In case of observation of any high rate of subsidence movement, appropriate effective corrective measures should be taken to avoid loss of life and material. Cracks should be effectively plugged with ballast and clayey soil/suitable material.

#### **Being Complied.**

In Gare Palma IV/4 coal mine: the method of underground coal mining is Board & 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 team. During the observation no any subsidence movement has been observed. In future, if any subsidence movement, occurred then 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.
		The subsidence study was already carried out for working panel by CSIR — Central Institute of Mining & Fuel Research Dhanbad in March 2019 for GP IV/4 Coal mines.
xxxvii	Sufficient coal pillars shall be left un- extracted around the airshaft (within the subsidence influence area) to protect from any damage from subsidence, if any.	Being Complied.  Sufficient coal pillars have been will be left unextracted around the airshaft (within the subsidence influence area) to protect from any damage from subsidence.
xxxviii	High root density tree species shall be selected and planted over areas likely to be affected by subsidence.	Being Complied.  High root density tree species will be selected and planted over areas likely to be affected by subsidence as required.
xxxix	Depression due to subsidence resulting in water accumulating within the low lying areas shall be filled up or drained out by cutting drains.	Being Complied.  As of now depression due to subsidence is not observed. In future if such depression gets observed resulting in water accumulating, the same will be filled up or drained out by cutting drains, if any
xl	Solid barriers shall be left below the village, roads falling within the blocks to avoid any damage to the roads.	Being Complied.  Solid barriers is left below the village, roads falling within the blocks to avoid any damage to the roads as per statute.
xli	No depillaring operation shall be carried out below the roads and habitation area found within the lease.	Being Complied.  No depillaring operation will be carried out below the roads and habitation area found within the lease.
xlii	The proponent shall ensure to undertake and provide the costs incurred for taking up remedial measures in case of soil.	Being Complied.  Cost incurred for taking remedial measures in case of soil will be borne by the company.
xliii	Extensive plantation should be done near agriculture area to avoid coal dust pollution which may affect the productivity of crop.	Being Complied.  Extensive planation along road side has been done near the agriculture area to avoid coal dust pollution which may affect the productivity of crop.  The same will be continue in other areas also.
xliv	ETP shall be provided for workshop, CHP, if any. Effluent shall be treated to	Being Complied.

	confirm to prescribe standards in case discharge in to any water course outside the lease. The quality of water discharged shall be monitored at the outer point and proper records maintained thereof and uploaded regularly on the company website.	Water treatment facility has been provided in mines for the seepage water treatment. The quality of treated water is being monitored. The water quality analysis report is already enclosed.  Also HIL constructed/provided the Effluent Treatment Plant of capacity 50 m3/Day. at Bankheta GP IV/4 to treat the waste water generated from Dumper/HEMM washing bay and treated water is being reused again in dumper/HEMM washing, Dust suppression & Greenbelt development.  The treated water quality analysis reports are being periodically furnished to CECB & uploaded regularly on the company website.
xlv	A detailed plan for CSR with specific budgetary allocation (capital and revenue) for various skill development and alternate livelihood programmes and schemes shall be implemented and the impacts activities under CSR monitored based on in a scientific methodology. An amount of Rs. 5 per tonne of coal produced with escalation factor shall be utilized for the CSR activities for the adjoining villages for the balance life of project apart from one time capital expenditure. The details of CSR undertaken along with budgetary provisions for the village wise various activities and expenditure thereon shall be uploaded on the company website every year. CSR Audit should be carried conducted annually.	Rs. 5/- per ton of coal produce is being utilized for CSR activities under the guidance of District Collector, Raigarh. CSR Expenditure detail is already enclosed.
xlvi	A special corpus fund either at company level or in CIL/MOC be provided for the reclamation of abandoned and degraded areas.	Being Complied. Escrow account has been opened for the reclamation of abandoned and degraded areas in the mine lease till date (March 2022) Rs 1044.56 lakhs has been deposited.

	T	
xlvii	For monitoring land use pattern and for post mining land use, a time series of land use, maps, based on satellite imagery (on a scale of 1: 5000) of the core zone and buffer zone, from the start of the project until end of mine life shall be prepared once in the three years (for any one particular season which is consistent in the time series). And the report submitted to MOEF and its regional office at Bhopal. The post mining land use shall be that out of the total 701.512 ha area, 57.73 ha area will be under plantation. 319.65 Ha area for public use, 324.132 ha area shall be undisturbed.	Complied.  Report on Assessment of Land Use / Land Cover using High Resolution Satellite Imagery for the GP Mine IV/4 Coal Mine was carried out by IndiGEO Consultants, Bangalore in the month of December 2019 and the report was submitted to MoEF & CC Nagpur, Regional office dated 27 May 2020.
xlviii	A Final Mine closure plan along with a plan for habitat restoration and with details of corpus Fund shall be submitted to the Ministry of Environment & forest five years before mine closure for approval. The species selected for habitat restoration for post mining and shall include a specific plan for development of agro forestry using a mix native species found in the study area.	Being Complied.  A Final Mine closure plan along with a plan for habitat restoration and with details of corpus Fund will be submitted to the Ministry of Environment & forest five years before mine closure for approval. The mix species will be selected for habitat restoration as per the conditions set out herewith.
xlix	A special corpus fund either at company level or in CIL/MOC be provided for reclamation of abandoned and degraded area.	Being Complied.  Escrow account has been opened for the reclamation of abandoned and degraded areas in the mine lease.
I.	The possibility of sand stone, wherever is present in the OB as per lithology report, be explored and be provided to locals free of cost.	Being Complied.  As per availability the sand stone is being provided to the locals free of cost.
li	After extraction of coal is completed, the OB left will be completely rehandled and backfilled the voids. This will be achieved by rehandling of OB Dumps in the area. Contamination	Being Complied.  After extraction of coal is completed, the OB dump created by Hindalco if any will be rehandled and backfilled into the voids as per mine closer plan to the extent possible.

	T	
	of ground water and surface water	
	and occupational and other dieases	
	due to the mining operation.	
lii	Corporate Environment	Being Complied.
	Responsibility:	The company has an Environmental policy duly
	a)The company shall have a well laid	signed by the Managing Director on Board.
	down Environment Policy approved	The environmental policy governs the SOPs for
	by the Board of Directors.	compliance of the stipulations within the frame
	b)The Environment Policy shall	work of regulatory requirements of environment
	prescribe for standard operating	/ Forest Norms.
	process/ procedures to bring into	There is compliance monitoring system is in place
	focus any	to take care of alert / reporting of compliance /
	infringements/deviation/violation	non compliances of the regulatory requirements
	of the environmental of forest	to the Mines Head & Head office (Compliance
	norms/conditions.	Committee).
	c) The hierarchical system or	
	administrative Order of the	
	company to deal with	
	environmental issues and for	
	ensuring compliance with the	
	environmental clearance conditions	
	shall be furnished.	
	To have proper checks and balances,	
	the company shall have a well laid	
	down system of reporting of no-	
	compliances/ violations of	
	environmental norms to the Board of	
	Directors of the company and /or	
	shareholders at large.	
Genera	al Conditions	
i	No change in mining technology and	Noted
	scope of working should be made	
	without prior approval of the ministry	
	of Environment & Forest.	
ii	No change in the calendar plan for	Noted
	quantum of mineral coal and waste	
	should be made.	
iii	Four ambient air quality monitoring	Being Complied.
Ì	stations shall be established in the	Four ambient air quality monitoring stations
	core zone as well as in the buffer zone	(Core Zone) & Four ambient air quality
	core zone as well as in the buffer zone for PM10, PM2.5, SO2, and NOx	(Core Zone) & Four ambient air quality monitoring stations (Buffer Zone) have been
	core zone as well as in the buffer zone	(Core Zone) & Four ambient air quality

	meteorological data topographical features and environmentally and ecologically sensitive targets in consultation with the state pollution Control Board. Monitoring heavy metals such as Hg, As Ni, Cd, Cr, etc. carried out at least once in six months.	Reports are being periodically furnished to CECB. Copy of AAQ Monitoring Report from the period October 2021 to March 2022 is enclosed as Annexure –8. Also installed 01 nos of CAAQMS (Continuous Ambient Air Quality Monitoring System) at Banjikhol, (at Mine lease boundary towards the village) for real time monitoring of environmental quality parameters i.e. PM 2.5, PM 10, NO,NO2, NOX, SO2, CO photograph enclosed as Annexure – 8 A
iv	Data on Ambient air quality (PM10, PM 2.5, SO2, NOX) monitoring location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the state Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr etc. carried out at	Being Complied.  All AAQM stations are decided based on the on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the state Pollution Control Board.  Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr etc. carried out once in six months.  Heavy metals Monitoring report for the month of
	least once in six months.	March 2022 is attached as Annexure No. 9
V	Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operation of HEMM, etc should be provided with ear plugs/muffs.	Being Complied.  Ear muffs/plugs has been provided to the all workers engaged in blasting and drilling operations. The Noise monitoring report period October 2021 to March 2022 is enclosed as <a href="mailto:Annexure-10">Annexure-10</a>
vi	Industrial wastewater (workshop and wastewater from the mine) should be properly collected treated so as to conform to the standards under prescribed GSR 422 (E) dated 19 <sup>th</sup> May 1993 and 31 <sup>st</sup> December 1993 or as amended from time to time before discharge. Oil and grease trap should be installed before discharge of workshop effluents.	Being Complied.  HIL constructed/provided the Effluent Treatment Plant of capacity 50 m3/Hr. at Bankheta GP IV/4 to treat the waste water generated from Dumper/HEMM washing bay and treated water is being reused again in dumper/HEMM washing, Dust suppression & Greenbelt development.  Photograph of Effluent Treatment Plat is attached as Annexure – 10A.  The treated water quality analysis reports are being periodically furnished to CECB.
		Copy of Analysis Report for the month of March 2022 is enclosed as Annexure –10B

vii	Vehicular emission should be kept under control and regularly monitored. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.	Being Complied.  Regular monitoring of vehicular emission is being done and it is under control. The PUC certificate has been ensured for all the vehicles engaged in mining activities.  The vehicle used for transporting the minerals are covered and optimally loaded.
viii	Monitoring of Environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the state pollution control board and data got analyzed through a laboratory recognized under EPA Rules,1986.	Being Complied. Environmental monitoring is being carried out through CECB & MoEF & CC approved & NABL accredited Laboratory i.e. Ultimate Envirolytical Solutions Raipur. Approval letter of Monitoring Agency from CECB Raipur, MoEF & CC & NABL accredited Laboratory certificate is attached as Annexure No 11
ix	Personnel working in dusty area shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspect.	Being Complied.  Personnel working in dusty areas are provided with protective respiratory devices and they have also been provided with adequate training and information on safety and health aspect.
Х	Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed and records maintained thereof.	Being Complied. Occupational health surveillance is undertaken as per DGMS guidelines.
xi	A separate environment management cell with suitable qualified personnel shall be set up under the control of a senior Executive, who will report directly to the head of the company.	Being Complied.  A separate Environmental Management Department is functioning at Coal Mine under the direct control of a senior executive.
xii	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this ministry and it's Regional Office at Bhubaneswar.	Being Complied. The funds earmarked for environmental protection measures has been budgeted separately and not been diverted for other purposes. Environmental Expenditure details from October 2021 to March 2022 is Enclosed as Annexure – 12

xiii	The project authority shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State pollution control Board and may also be seen at the website of the ministry of environment & forest at https://envfro.nic.in.	Now Raipur Regional Office is looking after EC monitoring & compliances full co – operation has been extended to Regional Officer by furnishing requisite data information / monitoring reports  Complied.
xiv	A copy of environmental clearance letter shall be marked to concern panchayat / Zila Parishad, Municipal Corporation or Urban local body and local NGO,if any., from whom any suggestion /representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on company's website.	Complied.  The EC documents are uploaded on the company's website  The status of the environmental parameters is displayed at the main gate.
xv	A copy of environmental clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the regional office, District Industry Sector and Collector's office/Tehsildar's office for 30 days.	Complied by Prior Allottee.
xvi	The Clearance letter shall be uploaded on the company's website. The compliance status of the stipulated environmental clearance conditions shall be uploaded by the project	Complied.  Upload the EC Clearance letter & Half yearly compliance report on the company's website i.e.

	authorities on their website and uploaded at least once every six months so as to bring the same in public domain. The monitoring data of environmental quality parameter (Air, Water, noise and soil) and critical pollutant such as PM10, PM2.5, SO2, and NO2 (Ambient) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mine office and in corporate office and on company's website	http://www .hindalco.com/sustainability/regulatory-compliances and also displayed the monitoring data of environmental quality parameter (Air, Water, noise and soil) and critical pollutant such as PM10, PM2.5, SO2, and NO2 at the entrance of the mine gate.
xvii	The project proponent shall submit six monthly compliance reports on status of compliance of the stipulated environmental clearance conditions (Both in hard copy and in e- mail) to the respective Regional Office of the Ministry, Respective Zonal officer's of CPCB and the SPCB. Compliance of the EC conditions be monitored by the MoEF and other concerned agencies.	Complied.  The last Half Yearly Compliance report for the period from April 2021 to September 2021 was submitted to IRO - MoEF & CC office, Raipur & Delhi, CECB Raigarh & Raipur, CPCB Bhopal & Delhi dated 18.11.2021.
xviii	The Regional Office of this ministry located at Bhubaneswar shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office (s) of the Regional Office by furnishing the requisite data / information/ monitoring reports.	Complied.  Now Raipur, Integrated Regional Office is looking after EC monitoring & compliances full co – operation has been extended to Regional Officer by furnishing requisite data information / monitoring reports
xix	The Environmental Statement for each financial year ending 31 March in Form –V is mandated to be submitted by the project proponent for the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently shall be uploaded on the company's web site along with the status of compliance of EC conditions and shall be sent to the respective Regional Officers of the MoEF & CC by E- mail	Complied.  Submitted the Environmental Statement Report (In Form - V) for the FY 2020 -21 to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, dated 15.09.2021 and also uploaded in the company's website also E-mailed the EC Compliance report to IRO -MoEF & CC Raipur.

5	The Ministry or other competent authority may stipulated any further	Noted.
	condition for environmental	
	Protection.	
-		
6	Failure to comply with any of the	Noted.
	conditions mentioned above may	
	result in withdrawal of this clearance	
	and attract the provisions of the	
	Environmental (Protection) Act, 1986	
7	The above condition will be enforced	Noted.
	inter - alia, under the provisions of the	
	Water (Prevention & Control of	
	Pollution) Act, 1974, The Air	
	(Prevention & Control of Pollution)	
	Act, 1981, The Environmental	
	Protection Act 1986, and the Public	
	Liability Insurance Act, 1991 along	
	with their amendments and Rules,	
	The proponent shall insure to	
	undertake and provide for the costs	
	incurred for taking up remedial	
	measures in case of soil	
	contamination, contamination of	
	ground water and surface water, and	
	occupational and other diseases due	
	to the mining operations.	
8	The Environmental Clearance is	Noted.
	subjected to the outcome of the case	
	filed by Chhattisgarh Environmental	
	Conservation Board, in the court of	
	Chief Judicial Magistrate, Raigarh,	
	which is pending.	

# Annexure-1

# J-11015/183/2010-IA-II(M) Government of India Ministry of Environment, Forest and Climate Change IA Division

Indira Paryavaran Bhawan, Jorbagh Road, N Delhi-3 Dated: 24<sup>th</sup> May, 2019

To,

The Assistant Vice-President (Corporate-Affairs)
M/s Hindalco Industries Limited,
Aditya Birla Centre, 3<sup>rd</sup> Floor,
B wing, S.K. Ahire Marg,Worli,

Mumbai - 400030 (Maharashtra) E-mail: corporateaffairs@adityabirla.com

Sub: Gare-Palma IV/4 Coal Block of capacity 1 MTPA of M/s Hindalco Industries Limited located in District Raigarh (Chhattisgarh) - Amendment in Environmental Clearance - reg.

Sir,

This is with reference to your online proposal No.IA/CG/CMIN/7679/2010 dated 25<sup>th</sup> January, 2019 on the above-mentioned subject.

- 2. The Ministry of Environment, Forest and Climate Change has granted environmental clearance vide letter dated 12<sup>th</sup> March, 2013 in favour of M/s Jayaswal Neco Industries to Gare-Palma IV/4 Coal Block of production capacity 1 MTPA (0.6 MTPA Underground & 0.4 MTPA Opencast) in mine lease area of 701.512 ha located in District Raigarh (Chhattisgarh).
- 3. Subsequent to cancellation of coal blocks pursuant to order of Hon'ble Supreme Court in August/September, 2014 and their reallocation to successful bidders, Gare-Palma IV/4 coal block was vested with M/s Hindalco Industries Limited vide Allotment Order No.104/16/2015/NA dated 23<sup>rd</sup> March, 2015 issued by the Nominated Authority in the Ministry of Coal. The said environmental clearance was accordingly transferred to M/s Hindalco Industries Limited vide this Ministry's letter dated 16<sup>th</sup> April, 2015.
- **4.** M/s Hindalco Industries Limited has sought amendment in the said environmental clearance for change in mining operations (Underground from 0.6 to 0.44 MTPA and Opencast from 0.4 to 0.56 MTPA) with the total capacity remains at 1 MTPA in the same mine lease area of 701.512 ha. Revised Mining Plan has the approval of Ministry of Coal vide letter dated 13<sup>th</sup> December, 2018.
- **5.** The EAC, in its meeting held on 21<sup>st</sup> February, 2019, has recommended the proposed amendment for change in mining operations, and thus amendment in the environmental clearance dated 12<sup>th</sup> March, 2013, read with communication dated 16<sup>th</sup> April, 2015, with all other conditions stipulated therein remaining the same. With the proposed restructuring, mining operations would be revised as under:-

Mining method	Proposed Production Capacity
Opencast	0.56 MTPA (Increase by 0.16 MTPA)
Underground	0.44 MTPA (Decrease by 0.16 MTPA)



- **6.** Based on recommendations of the EAC, Ministry of Environment, Forest and Climate Change hereby accords approval for amendment in environmental clearance dated 12<sup>th</sup> March, 2013, read with communication dated 16<sup>th</sup> April, 2015, to Gare-Palma IV/4 Coal Block of M/s Hindalco Industries Limited located in District Raigarh (Chhattisgarh), to effect change in mining operations as stated in para 5 above, with the total capacity remains at 1 MTPA in the same mine lease area of 701.512 ha.
- **7.** All other conditions stipulated in environmental clearance granted vide letter dated 12<sup>th</sup> March, 2013, read with communication dated 16<sup>th</sup> April, 2015, shall remain unchanged.

(S. K. Srivastava) Scientist E

#### Copy to:

- 1. The Secretary, Ministry of Coal, New Delhi
- 2. The Secretary, Department of Environment & Forests, Government of Chhattisgarh, Secretariat, Raipur
- 3. The Chief Conservator of Forests, Regional office (EZ), Ministry of Environment & Forests, E-2/240 Arera Colony, Bhopal 462016
- 4. The Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi
- 5. The Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, Delhi 32
- 6. The Member Secretary, Chhattisgarh State Environment Conservation Board, 1-Tilak Nagar, Shiv Mandir Chowk, Main Road, Avanti Vihar, Raipur- 492001(Chhattisgarh)
- 7. The District Collector, Raigarh, Government of Chhattisgarh
- 8. Monitoring File
- 9. Guard File
- 10. Record File

# Annexure-2



Ref. No. HIL/GP-IV-4/CCO/2022-23/009

Dated: 04.04.2022

To,
The Coal Controller,
Office of the Coal Controller,
Ministry of Coal,
Government of India,
1, Council House Street,
Kolkata-700001.

Sub: Statistical Return for the month of March-2022 of Gare Palma IV/4 Coal Mine.

Sir,

Enclosed please find the Statistical Return for the month of March-2022 of Gare Palma-IV/4 Coal Mine.

This is for your kind information please.

Thanking you,

Yours sincerely,

Deepak resad Lei Mine Manager Gare Palma-IV/4

Raniikhol Raigarh

Encl.: as above.

Copy to: OSD, CCO, Bilaspur.

### Statistical Return for the month of March -2022.

- 1 Name of the Coal Company :- Gare Palma IV/4 Coal Mine, M/s Hindalco Industries Limited.
- <sup>2</sup> Contact Name with Designation & Telephone No. :- Deepak Prasad Lenka (Mines Manager), Mob.No.9111006023
- 3 Coal Consuming sector :- Captive Power Plant

of Raw Coal, Clean Coal and Middling etc.

Coal Type		Clean Coal and Mi	Production (In I	housand Tonnes	,	750000
Coal Type		During Month		Pro	gressive (F.Y. 2021	-22)
		Underground	Total	Opencast	Underground	Total
	Opencast	Onderground		1		II ● .
Coking	-1-1	•	45.004	559,956	0.000	559.956
Non Coking	15.364	0.000	15.364		0.000	559.956
Total Raw Coal	15.364	0.000	15.364	559.956	0.000	
Clean Coal	SAE.	•	•	•		
Middlings	•		*	• -	•	
Rejects			•	•	•	

	Despatch (In Thousand Tonnes)		Mode of Despatch (In Thousand Tonnes)		
Coal Type	During Month	T - (E.V. 0004 33)		Road	Others
	During World		•	•	•
Coking	•	562.59465		24.70289	-
Non Coking	24.70289			24,70289	
Total Raw Coal	24.70289	562.59465			•
Clean Coal	-		•		
Middlings		•	•	•	
Rejects		•	•	•	
,		,			

<sup>\*</sup> Domestic Consumption - Nil

Coal Type	Pit Head Closing Stock (In Thousand Tonnes)	
	During Month	
Coking		
Non Coking	24.252216	
Total Raw Coal	24.252216	
Clean Coal	y f sar •	
Middlings	· .	
Rejects	•	

Signature:

Designation: Owner/ Agent/ Mg

Date :- 04.04.2022

# Annexure - 3

### CSR & Sustainability Expenditure Details From October 2021 to March 2022 Hindalco Industries Ltd. Gare Palma IV/4

Sr. No.	Focused Area/ Project Activities	Summary Cost (In Lakhs)	
1	Education	2.700	
2	Health	50.795	
3	Sustainable Livelihood under CSR	1.160	
4	Infra - Structure	1.205	
5	Social	6.805	
6	Other ( if any)	0.320	
7	Under Sustainable Development	25.820	
	Total	88.805	

# Annexure-4

## Hindalco Industries Limited Green Belt Development Status

Year	Location	No. of Tree Planted (Approx.)	Survival Rate (%)	Number of Plant Survived	Area Covered in Plantation (hectare)	Sapling Details
Upto 2015	Coal mine lease area/OB Dump.	53000	85.00	45050	18.0	Saja,Siris, Shisham,Yellow flametree, Kassod, Satvan, Acacia Mangium, Ganga Emli, Arjuna, Chirol, Gliricidia, Amla,Mango, guava, Kathal,Neem Pipal, Ficus sp., Peltafarm, Nilgiri Casia Samia, Gulmohar, Acacia Coliformis,Jamun,Kachnar, Baheda, Kachnar,Mahua & Saal etc.
2016		6500	90.00	5850	2.3	
2017		10000	87.00	8700	3.5	
2018		5000	87.00	4350	1.7	
2019		6600	90.00	5940	2.4	
2020		10200	93.83	9570	3.9	
2021		8521	95.00	8094	3.2	
Total		99821	87.71	87554	35.0	EIL.

### Green Belt Development Photographs













































# Annexure-4A

### Photographs of Truck mounted water sprinklers & Fixed type of water sprinklers at GP IV/4 Coal Mines

#### **Truck mounted water sprinkler**





#### Fixed type of water sprinklers







# Annexure-4AA

#### Annexure – 4AA





SETTLING POND NO – 1

SETTLING POND NO – 2



SETTLING POND NO – 3

### Annexure-4AAA



An additional settling pond of size 30m X 10m X 1.5m (01Nos) to collect whole mine seepage water generated during the mining activities specially for the rainy season for proper settling of mine seepage water before discharge it out site

## Annexure-4B

#### **ANNEXURE – 4B**



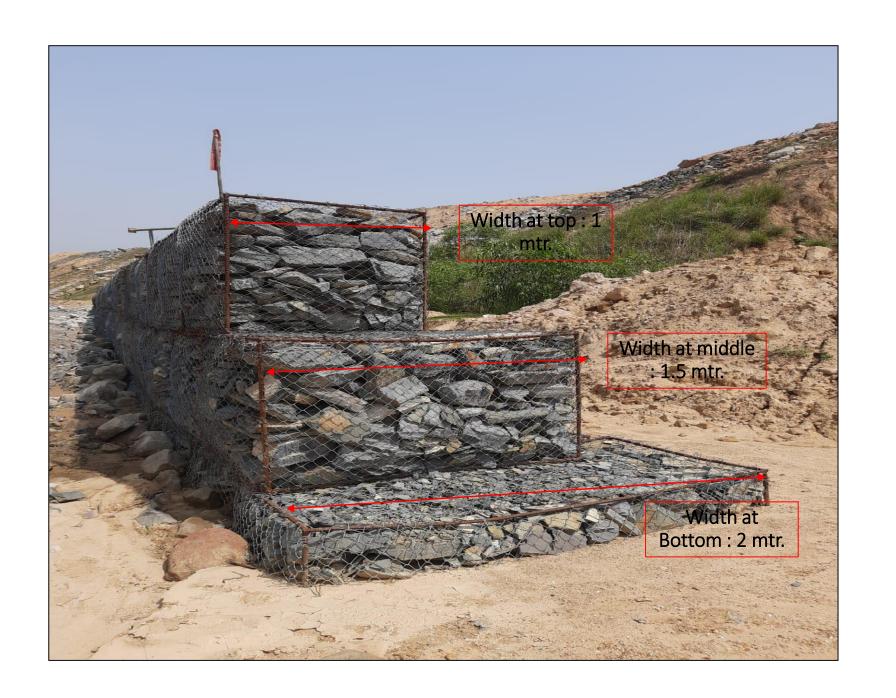


02 nos of additional settling pond of size (50m X 40m X 5.0 m) for proper settling of mine seepage water generated from mining activities from Batch "B" before discharge for the agriculture purpose

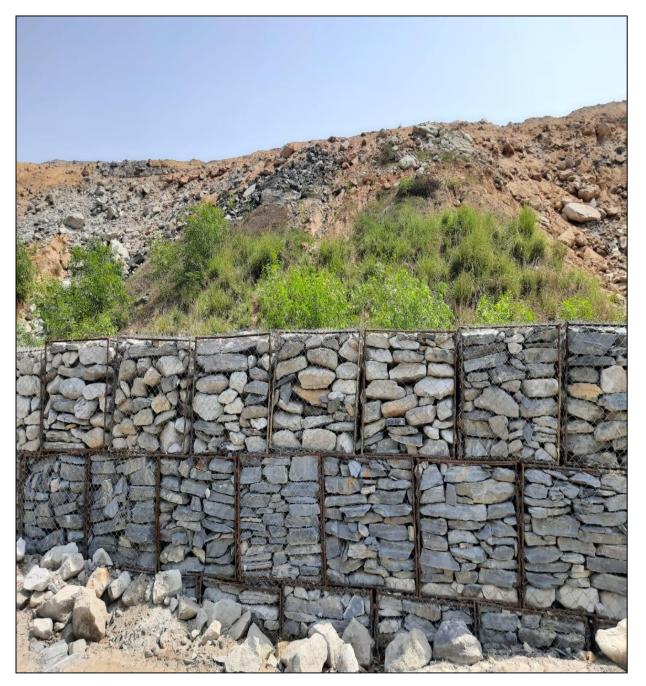
### ANNEXURE – 4C



Gabion/Retaining wall at the toe of permanent dump slope for arresting the silt near Patch "C" in Banjikhol, GP IV/4 Coal Mines.









## Annexure-4CC



Ref No: HIL/ GP-IV4/EC- C-2/2021-22/33

1st June 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

Kind Attention: Dr. P.R Sakare (Scientist –D/ Joint Director)

Sub.: - Environmental Clearance Compliance of Specific condition no. (xxiv) of Gare Palma IV/4 Coal Mine of M/s Hindalco Industries Limited, Village – Banjikhol, Tehsil – Tamnar, District – Raigarh, Chhattisgarh- Compliance of reg.

#### Ref.:

- Letter No. F.No.3-18/2013(ENV)/5931 dated 28<sup>th</sup> November 2019.
- 2. Mine visit of Dr. P.R Sakhare (Scientist –D/ Joint Director) for the monitoring of compliance of condition stipulated in the environment clearance dated 7<sup>th</sup> November 2019.

#### Respected Sir,

Please find the compliance status as on date regarding EC Specific Condition No. xxiv:

Sr. No.	EC Specific Condition No. xxiv	Compliance status during the site visit	Compliance status till date
1	To check run-off and siltation from OB/benches retaining wall is being constructed at the toe of permanent dump slope.	Partially Complied.	Complied.  In the Ist Phase we have constructed approx. 55 m long gabion/retaining wall at the toe of permanent dump slope near Patch "C" in Banjikhol, GP IV/4 Coal Mines.  The Gabion /retaining walls had been made of GI wire net cages filled with stone boulders and anchored with angle iron as per specification.  Gabion walls provide vertical support to the bottom of the slope and help against sliding. They also protect the toe of the reshaped OB dump.



We would also like to inform you that we have taken gabion/retaining wall construction activity at the toe of the OB dump as a continuous process & ensure you that it will be carried out as & when required in future also at mine site.
Photographs of constructed gabion/Retaining wall attached as Annexure No 1

We request you to kindly update as Complied instead of Partially Complied and issue/grant a compliance Certificate for the future reference please.

Thanking you,

Yours faithfully,

For Hindalco Industries Limited

Dipesh Bhatia

(Vice President –Mines)

Enclosed: Annexure -1

# Annexure-5



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

REPORT NO UES/TR/21-22/3501 TO, LAB REF NO UES/21-22/W/6282 HINDALCO INDUSTRIES LIMITED, DATE OF SAMPLING 27/10/2021 DATE OF RECEIPT 28/10/2021 GARE PALMA - IV/4, COAL MINE, 01/11/2021 DATE OF REPORT VILLAGE - BANKHETA, POST MILUPARA, DATE OF ANALYSIS START: 28/10/2021 END: 01/11/2021 DISTT. - RAIGARH (C.G.) 496107 SAMPLE DETAILS M/PO/8RV/2122/0045 SAMPLE TYPE WASTE WATER ORDER / THE PROPERTY DTD::24-JULY-2021 ETP INLET BANTIFOLD

3 L K 1 NO. FPC CAS

1 L K 1 NO. PPC CAS

1 L K 1 NO. CLESS SOTTLE

15:3022-FAST 1) 1587 6A 3003; AFRA 22ND

ED. 2012, 1060-B, 1-39 SAMPLE CONDITION AT PECEIFT CUEDAN SMPLE ID SAMPLE COLLECTED BY LABORATORY CHEMIST CHELING PROCESSES QUARTITY RECEIVED 5 LTH

SR. NO.	PARAMETER	PARAMETER UNIT METHOD OF TEST		THE ENVIRONMENT (PROTECTION) RULES, 1988 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT	
1	Colour	Hazen	APHA 22 <sup>55</sup> Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1	
2	Odour	1000	APMA 22"2Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable	
3	Temperature	*c	APHA 22 <sup>38</sup> Ed.2012,2130-B,2-13	Shall not exceed 5'C above the receiving water temperature	24.2	
4	pii	-	APRA 22 Ed. 2012, 4500-H'-B, 4-92	5.5 to 9.0	7.56	
5	Total Residual Chlorine	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-C1-G, 4 - 69	1.0	N.D.	
6	Total Suspended Solids	mg/L	APHA 22 <sup>nd</sup> Ed.2012,2540- D, 2-66	100	72.0	
7	Dissolved Phosphate (as F)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-P-C, 4-153	5.0	N.D.	
8	Fluoride (as F)	mg/L	АРНА 22 <sup>ml</sup> Ed.2012,4508-F-B&D,4-B4 s 87	2.0	0.11	
9	Lead (as Pb)	mg/L	APHA 22 <sup>M</sup> Ed.2012,3111-B, 3-18	0.1	N.D.	
10	Zinc (as Zn)	mg/L	APHA 22 <sup>NS</sup> Ed.2012,3111-B, 3-18	5.0	0.16	
11	Copper (as Cu)	mg/%	APHA 22 <sup>nt</sup> 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.	
1.3	Mercury (as Hg)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3112-B, 3-23	0.01	N.D.	
14	Arsenic (as As)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.2	N.D.	
15	Selenium (as Se)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3114-C, 3-38	0.05	N.D.	
16	Total Chromium (as Cr)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3500-Cr-B,3-69	2.0	N.D.	
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 <sup>rd</sup> Ed.2012, 5520-B,5-17	250	116.0	
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025(Part 44):1993, BA 2003	30	18.4	
19	Oil & Grease	mg/L	IS 3025 [Part 39]:1991, RA 2003,	10.0	N.D.	
20	Phenolic Compounds (as C_H_ON)	mg/L	IS 3025[Part 43]:1992, RA 2003	1.0	N.D.	

The report for publication, arbitration or as legal dispute is forbidden. Test earnple will be retained for Unitary after issue of test report upon

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

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

01/11/21 AUTHORIZED SIGNATORY

..... End of the test report-



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

GARE PALMA - VILLAGE - BAN	JSTRIES LIMITED, IV/4, COAL MINE, KHETA, POST MILUPAR RH (C.G.) 496107	REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS	UES/TR/21-22/04171 UES/21-22/W/07485 23/11/2021 24/11/2021 01/12/2021 START: 24/11/2021 UND: 27/11/2021			
		SAMP	LE DETAILS	TAIL		
TOURTE TAKE	NACTE NATER		(SCES /WEFERSONCE)		R/FO/80V/	72122/9045
COMPANY SMALLS ID	ETF INLEY BANJINGS	BANFLE COMDITTON AT RECEIPT		DSD, 24-JULY-2022 OK		
PACKING OF EMPIRE	J L N L NO. PVC CAN I L N I NO. PVC CAN I L X I NO. HLASS BOTTLE	SEALED	SAMPLE COLLECTED BY		LABORATORY CHRMIST	
GAMPLING PROCEDURE II: 3025 (FAMP II: 1307 HA 2003) APRA 22NO ED. 2012, 1000-B, 1-29			GEARTITY RECEIVED		5 Ltm	

	TEST REPORT							
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1985 (SCHEDULE-VI) PART-A INLAND SURFACE WATER	RESULT			
-1	Colour	Hazen	APHA 22**Ed. 2012,2120-B,2-6	See 6 of Annexure-1	<1			
2	Odour	-	AFHA 22"Ed. 2012,2120-8,2-6	See W of Annexure-I	Agreeable			
3	Temperature	*c	APHA 22 <sup>44</sup> Ed.2012,2130-8,2-13	Shall not exceed 5'C above the receiving water temperature	25.3			
4	pH	-	AFHA 225 Ed. 2012, 4500-H'-B, 4-92	5.5 to 9.0	7.48			
5	Total Residual Chlorine	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-C1-G, 4 - 69	1.0	N.D.			
6	Total Suspended Solids	ing/L	APHA 22 <sup>nd</sup> Ed.2012,2540- D. 2-66	100	56.0			
7	Dissolved Phosphate (as P)	ng/I,	APHA 22 <sup>ne</sup> Ed.2012,4500-P-C, 4-153	5.0	N.D.			
0	Fluoride (as F)	ng/L	APHA 22 <sup>ME</sup> Ed. 2012, 4500-F-B&D, 4-84 4 87	2.0	0.14			
9	Lead (as Pb)	ng/L	APHA 22 <sup>16</sup> Ed.2012,3111-B, 3-18	0.1	N.D.			
10	Zinc (as Zn)	ng/L	APHA 22** Ed.2012,3111-B, 3-18	5.0	0.08			
11	Copper (as Cu)	ng/L	APHA 22 <sup>18</sup> 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 Hg)	mg/L	APHA 22° Ed.2012,3112-B, 3-23	6.01	N.D.			
14	Arsenic (as As)	ng/L	APHA 22 <sup>58</sup> Ed.2012,3114-C, 3-38	0.2	N.D.			
15	Selenium (as Se)	mg/L	APHA 22** Ed.2012,3114-C, 3-38	8.05	N.D.			
16	Total Chromium (as Cr)	ng/L	APHA 22 <sup>nd</sup> Ed.2012,3500-Cr-B,3-69	2.0	W.D.			
17	Chemical Oxygen Demand (COD)	mg/L	AFHA 22 <sup>rd</sup> Ed.2012, 5520-B,5-17	250	144.0			
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025(Part 44):1993,RA 2003	30	21.4			
19	Oil & Grease	mg/L	15 3025 (Part 39):1991, RA 2003,	10.0	N.D.			
20	Phenolic Compounds (as C_H_OH)	mg/L	IS 3025(Fart 43):1992,RA 2003	1.0	N.D.			

LRKS: mg/kt.milligrem per liter, N.D.: Nat Detected.

The report for publication, artification or as legal dispure in furbidden.

Test sample will be retained by 15 days after issue of test report of 15 to harvior agreed with customer.

PLOUE TO ALL REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

.....End of the test report-



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

GARE PALMA – VILLAGE – BAN	USTRIES LIMITED, IV/4, COAL MINE, KHETA, POST MILUPAR/ RH (C.G.) 496107	REPORT NO URS/TR/21-22/04914  LAB REF NO UES/21-22/W/08753  DATE OF SAMPLING 22/12/2021  DATE OF RECEIPT 23/12/2021  DATE OF REPORT 01/01/2022  DATE OF ANALYSIS START:24/12/2021 END:28/12/20				
		SAMPI	LE DETAILS	***		
SAULE TYPE	WASTE WATER		ORDER /REFERENCE:			/2122/0042, mrs.phal
CHEMIN SANGE ID	ETP INLEY MANUFACE		SAMPLE COMMITTON AT BEICH	ETPT	OK 24-JULY-2022	
PACKING OF EMPLE	HORING OF EARPLE STALLED STALL		SAMPLE COLLECTED BY		LABORATORY CHEMIST	
SAMPLING PROCEDURE IS:3025(FARF I):1907 NA 2003/ APMA 22ND ED. 2012, 1660-B, 1-39			GRANALLA MECHIANO		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*Ed. 2012,2120-B,2-6	See 6 of Annexure-1	<1			
2	Odour	-	APHA 22 <sup>st</sup> Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable			
.3	Temperature	†c	AFHA 22 <sup>rd</sup> Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.4			
4	pH	-	APHA 22" Ed. 2012, 4500-H'-B, 4-92	5.5 to 9.0	7.52			
5	Total Residual Chlorine	mg/L	AFHA 22 <sup>td</sup> Ed.2012,4500-C1-G, 4 -	10	N.D.			
6	Total Suspended Solids	mg/L	APHA 22 <sup>M6</sup> Ed.2012,2540- D, 2-66	100	58.2			
7	Dissolved Phosphate (as P)	mg/L	AFHA 22° Ed.2012,4500-P-C, 4-153	5.0	N.D.			
8	Fluoride (as F)	mg/L	APHA 22 <sup>lst</sup> Ed.2012,4500-F-B&D,4-84 & 87	2.0	0.10			
9	Lead (as Pb)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3111-B, 3-18	0.1	N.D.			
10	Zinc (as Zn)	mg/L	APHA 22 <sup>nd</sup> Sd.2012,3111-B, 3-18	5.0	0.09			
11	Copper (as Cu)	ng/L	APHA 22 <sup>rd</sup> Ed.2012,3111-B, 3-18	3,0	N.D.			
12	Cadmium (as Cd)	ng/L	APHA 22 <sup>rd</sup> Ed.2012,3500-Cd, 3-105	2.0	N.D.			
13	Mercury (as Hg)	mg/L	APHA 22 <sup>ed</sup> Ed.2012,3112-B, 3-23	0.01	N.D.			
14	Arsenic (as As)	mg/L	APHA 22 dd. 2012, 3114-C, 3-38	0.2	N.D.			
15	Selenium (as Se)	mu/L	APHA 22 <sup>M</sup> Ed.2012,3114-C, 3-38	0.05	N.D.			
16	Total Chromium (ns Cr)	mg/L	APHA 22 <sup>60</sup> Ed.2012,3500-Cr-B,3-69	2.0	N.D.			
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 <sup>rd</sup> Ed.2012, 5520-B,5-17	250	148.0			
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025(Fart 44):1993,RA 2003	30	22.4			
19	Oil & Grease	mg/L	IS 3025(Part 39):1991,RA 2003,	10.0	N.D.			
20	Phenolic Compounds (as CaHaOH)	mg/L	IS 3025(Part 43):1992,RA 2003	1.0	N.D.			

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

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY



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

GARE PALMA - VILLAGE - BAN	USTRIES LIMITED, IV/4, COAL MINE, KHETA, POST MILUPAR RH (C.G.) 496107	REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS	UES/TR/21-22/05975  UES/21-22/W/010293  24/01/2022  25/01/2022  02/02/2022  START: 25/01/2022 END: 29/01/2022			
		SAMP	LE DETAILS		Trees to the last	
awete me	MARIE WATER		CHORER /ARPENERICE:		M/PO/GRY/2122/0045, DED. 24-JULY-2022	
CUSTNESS SAMPLE ID	ETF INLET BARJIRBOL	SAMPLE CONDITION AT RECKIPT		CMC		
PACKING OF SAMPLE	F GAMPLE J L X I NO. PVC CAM  J L X I NO. PVC CAM  J L X I NO. GLARS SCITCE		NAMPLE COLLECTED MY		IABORATORY CHEMIST	
SAMPLING PROCEDURE 18:3025 (PART 1):1987 RA 2003: APRA 2280 ED. 2012, 1060-B, 1-39		QUARTITY RECEIVED		5 LTR		

	TEST REPORT							
SR. PARAMETER		UNIT METHOD OF TEST		THE ENVIRONMENT (PROTECTION) RULES, 1986 (SCHEDULE-VI) PART-A INLAND SURFACE WATER	RESULT			
.1	Colour	Hazen	APHA 22 <sup>nd</sup> Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1			
2	Odour	-	APHA 22"dEd. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable			
3	Temperature	*c	APHA 22 <sup>nd</sup> Ed.2012,2130-8,2-13	Shall not exceed				
4	pli	-	APHA 22" Ed. 2012, 4500-H*-B, 4-92	5.5 to 9.0	7.49			
5	Total Residual Chlorine	mg/L	АРНА 22 <sup>60</sup> Ed.2012,4500-C1-G, 4 - 69	1.0	N.D.			
6	Total Suspended Solids	mg/L	APHA 22 <sup>rd</sup> Ed.2012,2540- D, 2-66	100	62.0			
2	Dissolved Phosphate (as P)	ng/L	АРНА 22 <sup>ни</sup> Ed.2012,4500-P-C, 4-153	5.0	N.D.			
8	Fluoride (as F)	mg/L	АРНА 22° Ed.2012,4500-F-B&D,4-84 4 87	2.0	0,11			
9	Lead (as Pb)	ng/L	APHA 22** Ed. 2012, 3111-B, 3-18	0.1	N.D.			
10	Zinc (as En)	mg/L	APHA 22 <sup>58</sup> Ed.2012,3111-B, 3-18	5.0	0.08			
11	Copper (as Cu)	mg/L	APHA 22 <sup>nm</sup> Ed.2012,3111-B, 3-18	3.0	N.D.			
12	Cadmium (as Cd)	ng/L	APHA 22 Ed. 2012, 3500-cd, 3-105	2.0	N.D.			
13	Mercury (as Hg)	ng/L	APHA 22 <sup>td</sup> Ed.2012,3112-B, 3-23	0.01	N.D.			
14	Arsenic (as As)	ng/L	APHR 22" Ed.2012,3114-C, 3-38	0.2	W.D.			
15	Selenium (as Se)	ng/L	APHA 22° Ed.2012,3114-C, 3-38	0.05	N.D.			
16	Total Chromium (as Cr)	mg/L	APHA 22** Ed.2012,3500-Cr-B,3-69	2.0	N.D.			
17	Chemical Oxygen Demand (COD)	mg/L	АРНА 22 <sup>94</sup> Ed.2012, 5520-B,5-17 250		152.0			
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025(Part 44):1993,RA 2003 30		20.6			
19	Oil & Grease	mg/L	18 3025(Part 39):1991,RA 2003,	10.0	N.D.			
20	Phenolic Compounds (as CaHaOH)	mg/L	IS 3025(Fart 43):1992,RA 2003	1.0	N.D.			

KB: mg/R:: milligram per liter, N.D.: Not Detected.

evens a consumers

The report for publication, arbitration or an legal dispote is forbidden

Test sumple will be retained for 15 days after issue of tost report unities otherwise agreed with customor

That is a series of the series

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

.....End of the test report-



SAMPLING PROCEDURE

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

5 478

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

REPORT NO UES/TR/21-22/07923 TO, LAB REF NO UES/21-22/W/013107 HINDALCO INDUSTRIES LIMITED, DATE OF SAMPLING 24/02/2022 DATE OF RECEIPT 25/02/2022 GARE PALMA - IV/4, COAL MINE, DATE OF REPORT 01/03/2022 VILLAGE - BANKHETA, POST MILUPARA, DATE OF ANALYSIS START: 25/02/2022 END: 01/03/2022 DISTT. - RAIGARH (C.G.) 496107 SAMPLE DETAILS R/PO/889/2122/0045, 24-JULY-2021 OR ORDER /REFERENCE: KARTE WATER SHIPLE TIPE ETP INIET BANJING SAMPLE COMMITTION AT RECEIPT CUSTMEN SAMPLE ID ##P INCHE MARCHEROL
5 L X 1 NO. PPC CM8
1 L X 1 NO. PPC CM8
1 L X 1 NO. CLASS SCITCE
1 L X 1 NO. CLASS SCITCE
1 N 1 NO. CLASS SCITCE
2012, 1000-0, 1-39 SMETH COLLECTED BY LABORATORY CHEMIST PACKETORS OF SAMPLE

QUANTITY SECRIVED

TEST REPORT							
SR. NO.	PARAMETER		METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1988 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT		
1	Colour	Hazen	APHA 22 ed 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	APHA 22 <sup>m0</sup> Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.6		
4	pH		APHA 22" Ed. 2012, 4500-H-B, 4-92	5.5 to 9.0	7.38		
5	Total Residual Chlorine	ng/L	APHA 22 <sup>M</sup> 8d,2012,4580-C1-G, 4 - 69	1,0	N.D.		
6	Total Suspended Solids	ng/L	APHA 22 <sup>HE</sup> Ed.2012,2540- D, 2-66	100	86.0		
7	Dissolved Phosphate (as P)	ng/L	APHA 22 <sup>td</sup> Ed.2012,4500-P-C, 4-153	5.0	N.D.		
8	Fluoride (as F)	ng/L	APHA 22 <sup>68</sup> Ed.2012,4500-F-B6D,4-84 4 87	2.0	0.14		
9	Lead (as Pb)	mg/L	APHA 22** Ed.2012,3111-B, 3-18	0.1	N.D.		
10	Einc (as En)	ng/L	APHA 22° Ed. 2012, 3111-B, 3-18	5.0	0.06		
11	Copper (as Cu)	ng/L	AFHA 22" Ed.2012,3111-B, 3-18	3.0	N.D.		
12	Cadmium (as Cd)	ng/L	APHA 22" Ed.2012,3500-Cd, 3-105	2.0	N.D.		
13	Mercury (as Hg)	ng/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 <sup>nd</sup> Ed.2012,3500-Cr-9,3-69	2.0	N.D.		
17	Chemical Oxygen Demand (COD)	ng/L	APHA 22** Ed.2012, 5520-B,5-17 250		184.0		
18	Biochemical Oxygen Demand (BOD)	ng/L	IS 3025(Part 44):1993,RA 2003	30	22.8		
19	Oil & Grease	ng/L	IS 3025(Part 39):1991,RA 2003,	10.0	N.D.		
20	Phenolic Compounds (as C.H.ON)	ng/L	IS 3025(Part 43):1992,RA 2003	1.0	N.D.		

#### REMARKS: mg/lt.: milligram per liter, N.D.: Not Detected.

For ULTIMATE ENVIROLYTICAL SOLUTIONS 10 01/03/2 AUTHORIZED SIGNATORY REVIEWED BY

.....End of the test report-



SMPLING PROCEDURE

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

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

REPORT NO TO, LAB REF NO UES/21-22/W/014623 HINDALCO INDUSTRIES LIMITED, DATE OF SAMPLING 28/03/2022 GARE PALMA - IV/4, COAL MINE, DATE OF RECEIPT 29/03/2022 DATE OF REPORT 02/04/2022 VILLAGE - BANKHETA, POST MILUPARA, DATE OF ANALYSIS START: 29/03/2022 END: 02/04/2022 DISTT. - RAIGARH (C.G.) 496107 SAMPLE DETAILS 8/PG/SRY/2122/0045, 24-JULY-2021 OR MARTIE MARKE ORDER /REPORTER: SMELE TIPE ETF INLET BARTINGS

3 L X 1 RO. DVC CAM
1 L X 1 NO. DVC CAM
1 L X 1 NO. DVC CAM
1 L X 1 NO. GLASS BOTTLS

18,3025(PART 2):1887 RA 2003, APRA 22KD
ED. 3012, 1880-R, 1-59 CUSTNESS SAMPLE ID SAMPLE CONDITION AT RECEIPT DACKING OF SAMPLE SAMPLE COLLECTED BY LABORATORY CHRIST

CONTENT 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	Masen	APHA 22° 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 Annexura-1	Agreeable		
3	Temperature	fc.	АРНА 22 <sup>*6</sup> Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	26.4		
4	pH	-	APHA 22 d. 2012, 4500-H*-B, 4-92	5.5 to 9.0	7.48		
5	Total Residual Chlorine	mg/L	APHA 22 <sup>82</sup> 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	92.0		
7	Dissolved Phosphate (as P)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-P-C, 4-153	5.0	N.D.		
8	Fluoride (as F)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-F-B6D,4-84 & 87	2.0	0.12		
9	Lead (as Pb)	mg/L	APHA 22" Ed.2012,3111-B, 3-18	0.1	N.D.		
10	Zinc (as Zn)	mg/L	APHA 22 <sup>28</sup> Ed.2012,3111-B, 3-18	5.0	0.08		
11	Copper (as Cu)	mg/L	APHA 22 <sup>rd</sup> 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 Hg)	mg/L	APHA 22 <sup>M</sup> Ed.2012,3112-B, 3-23	0.01	N.D.		
14	Arsenic (as As)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3114-C, 3-38	0.2	M.D.		
15	Selenium (as Se)	ng/L	APHA 22° Ed.2012,3114-C, 3-38	0.05	W.D.		
16	Total Chronium (as Cr)	ng/L	APHA 22° Ed.2012,3500-Cr-B,3-69	2.0	N.D.		
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 <sup>a2</sup> Ed.2012, 5520-B,5-17	250	164.0		
1.0	Biochemical Oxygen Demand (BCD)	mg/L	IS 3025(Part 44):1993,RA 2003	30	18.4		
19	Oil & Grease	mg/L	IS 3025(Part 39):1991,RA 2003,	10.0	N.D.		
20	Phenolic Compounds (as C <sub>4</sub> H <sub>5</sub> OH)	mg/L	IS 3025(Part 43):1992,RA 2003	1.0	N.D.		

The report for publication, arbitration or as legal dispute is forbidden.
Test sample will be related for 1 Sitys after issue of last report unless at
This is for defensation as the purpy has asked for above bentyl only. 02/04/22

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

5 LTR

0204 22 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

HINDALCO INDU: GARE PALMA - IN VILLAGE - BANK POST -MILUPARA DISTT RAIGARI	STRIES LIMITED, 1/4, COAL MINE, HETA,	DA:	FORT NO FREE NO FREE OF SAMPLING FREE OF RECEIPT FREE OF REPORT FREE OF ANALYSIS	UES/TR/21-22/3502  UES/21-22/W/6283  27/10/2021  28/10/2021  01/11/2021  START: 28/10/2021 END: 01/11/20		
		SAMPLE	DETAILS		11-1	
SAMPLE TYPE	WASTE WATER		ORDER /METERENC	E:		0/8RV/2122/0045, 0,:24-JULY-2021
CUSTMER SAMPLE ID	ETP COTLET BANJIKNOL		SAMPLE CONDITION AT RECEIPT		OK	
PACKING OF SAMPLE 3 L X 1 NO. PVC CAN SEA 1 L X 1 NO. GLASS BOTTLE 1 L X 1 NO. GLASS BOTTLE			SAMPLE COLLECTE	D BY	conneces	
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 <sup>rd</sup> Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1				
2	Odour	-	APHA 22 <sup>ME</sup> Ed. 2012,2120-8,2-6	See 6 of Annexure-I	Agreeable				
3	Temperature	*c	APHA 22 <sup>ml</sup> Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	24.0				
4	pit		APHA 22" Ed. 2012, 4500-H"-B, 4-92	5.5 to 9.0	7.56				
5	Total Residual Chlorine	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-C1-G,4-69	1.0	N.D.				
6	Total Suspended Solids	mg/L	APHA 22 <sup>rd</sup> Ed.2012,2540- D, 2-66	100	22.0				
7	Dissolved Phosphate (as P)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-F-C,4-153	5.0	N.D.				
8	Fluoride (as F)	mg/L	APRA 22 <sup>Nd</sup> Ed.2012,4500-F-B AD, 4- 84 & 87	2.0	N.D.				
9	Lead (as Pb)	mg/L	APHA 22'4 Ed.2012,3111-B, 3-18	0.1	N.D.				
1.0	Zinc (as En)	mg/L	AFHA 22 <sup>rd</sup> Ed.2012,3111-B, 3-18	5.0	N.D.				
11	Copper (as Cu)	mg/L	APHA 22 <sup>cd</sup> Ed.2012,3111-B, 3-18	3.0	N.D.				
12	Cadmium (as Cd)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3500-Cd, 3-105	2.0	N.D.				
13	Mercury (as Hg)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3112-B, 3-23	0.01	N.D.				
14	Arsenic (as As)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3114-C, 3-38	0.2	N.D.				
15	Selenium (as Se)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.05	N.D.				
16	Total Chromium (as Cr)	mg/L	APHA 22" Ed.2012,3500-Cr-B,3-69	2.0	N.D.				
17	Chemical Oxygen Demand (CCD)	mg/L	APHA 22 <sup>nd</sup> Ed.2012, 5520-B, 5-17	250	14.0				
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	2.2				
1.9	Dil 6 Grease	mg/L	IS 3025 (Part 39):1991, RA 2003	10.0	N.D.				
20	Phenolic Compounds (as CsH:OH)	mg/L	18 3025 (Part 43):1992, BA 2003	1.0	N.D.				

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

Terms & conditions

REVIEWED BY

The report for publication, achievation or as legal dispute is trajector that sample will be estated for 15 days after issue of test processible in the intermediate as the party has asked for atoms to be party for

6

For ULTIMATE ENVIROLYTICAL SOLUTIONS

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

TO, HINDALCO INDU: GARE PALMA – IV VILLAGE – BANK POST -MILUPARA DISTT RAIGARI	STRIES LIMITED, 1/4, COAL MINE, HETA,	Di Di	DORT NO LE REF NO LIE OF SAMPLING LIE OF RECKIPT LIE OF REPORT LIE OF ANALYSIS	UES/TR/21-22 UES/21-22/W/ 23/11/2021 24/11/2021 01/12/2021 START: 24/11/	07486	END: 27/11/2021
		SAMPLE	DETAILS			
SAMPLE TYPE	RASTE WATER		ORDER /REFERENC	W:		/SBV/2122/0045, 24-JULY-2021
COSTMER SAMPLE ID	ETP COTLET BAMJIKHOL		RAMPLE COMPITIO	W 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	SEALED	SAMPLE COLLECTE	р ву	CHES	HIST
SAMPLING PROCEEDING	IS:3025(PART I):1987 RA 2003; 22MD ND. 2012, 1060-N, 1-39	APHA	QUARTITY RECEIV	WED COM	5 10	78

	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"Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1				
-2	Odour		APHA 22"Ed. 2012,2120-8,2-6	See 6 of Annexure-I	Agreeable				
a	Temperature	rc.	APHA 22 <sup>M</sup> Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	24.8				
4	pii	-	APHA 22" Ed.2012,4500-H*-B,4-92	5.5 to 9.0	7,10				
5	Total Residual Chlorine	Hg/L	APHA 22 <sup>nd</sup> Ed.2012,4508-C1-G,4-69	1.0	w.D.				
16	Total Suspended Solids	mg/L	APHA 22" Ed.2012,2540- D, 2-66	100	22.0				
7.	Dissolved Phosphate (as P)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,4500-P-C,4-153	5,0	N.D.				
B	Fluoride (as F)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-F-B &D, 4- 84 & 87	2.0	N.D.				
9:	Lead (as Pb)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	0.1	N.D.				
10	Einc (as En)	mg/L	APHA 22 <sup>nf</sup> Ed.2012,3111-8, 3-18	5.0	N.D.				
11	Copper (as Cu)	mq/L	APHA 22 <sup>nd</sup> Ed.2012,3111-8, 3-18	3.0	N.D.				
12	Cadmium (as Cd)	mg/L	APHA 22 <sup>HF</sup> Ed.2012,3500-Cd, 3-105	2.0	N.D.				
13	Heroury (as Hg)	ng/L	APHA 22 <sup>M</sup> Ed.2012,3112-8, 3-23	0.01	N.D.				
1.4	Arsenic (as As)	mg/L	APHA 22 <sup>nd</sup> 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)	ng/L	APHA 22" Ed.2012,3500-Cr-8,3-69	2.0	N.D.				
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22** Ed.2012, 5520-B, 5-17	250	16.0				
1.0	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Fart 44):1993, BA 2003	30	2.8				
1.9	Oil & Grease	mg/L	IS 3025 (Part 39):1991, RA 2003	10.0	N.D.				
20	Phenolic Compounds (as C_6H_1OH)	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, artistration or as Regal dispute in fortishing.

Text sample will be retained for 15 days after issue of test report and an alternative agreed with customer.

This is for information as the costs like asked for above tested each.

Phuett 01/12/2/ REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report-



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

	STRIES LIMITED, V/4, COAL MINE, CHETA,	DA DA	PORT NO B REF NO TH OF SAMPLING THE OF RECEIPT THE OF REPORT THE OF ANALYSIS	UES/TR/21-2: UES/21-22/W, 22/12/2021 23/12/2021 01/01/2022 START: 24/12/	08754	END: 28/12/2021
		SAMPLE	DETAILS	The second secon	912000	
SMPLE TYPE	WASTE WATER		ONDER /REFERENCE	E.		/889/2122/0045,
COURTMER SAMPLE ID	ETP OUTLET HANJINGOL		SAMPLE CONDITION		OR.	34-3003-2021
PACKING OF SAMPLE	J L X 1 MO. PVC CAN I L X 1 MO. PVC CAN I L X 1 MO. GLASS BOTTLE	SEALED	SAMPLE COLLECTES		CRES	ust
SAMPLING PROCEDURE	IS:3025(PART I):1987 RA 2003; 22MD ED. 2012, 1060-B, 1-39	APHA	QUANTITY RECEIVE	ED CO	5 11	R

			TEST REPORT		
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT
2	Colour	Hazen	APHA 22"Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1
- 2	odour	-	APHA 22 <sup>84</sup> Ed. 2012,2120-8,2-6	fiee 6 of Annexure-1	Agreeable
3	Temperature	*c	APHA 22 <sup>nd</sup> Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	24.9
4	pH Total Residual	-	APHA 22" Ed.2012,4500-H'-B,4-92	5.5 to 9.0	7.23
5	Chlorine	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4508-C1-G,4-69	1.0	N.D.
6	Total Suspended Solids	ng/L	APHA 22° Ed.2012,2540- D, 2-66	100	24.0
7	Dissolved Phosphate (as P)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,4500-P-C,4-153	5.0	N.D.
8	Fluoride (as F)	mg/L	APHA 22** Ed.2012,4500-F-B &D, 4- 84 & 87	2.0	N.D.
9	Lead (as Pb)	ng/L	APHA 22 <sup>34</sup> Ed.2012,3111-B, 3-18	0.1	N.D.
10	Zinc (as Zn)	mg/L	AFHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	5.0	N.D.
11	Copper (as Cu)	ng/L	APHA 22 <sup>rd</sup> Ed.2012,3111-B, 3-18	3.0	N.D.
12	Cadmium (as Cd)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3500-Cd, 3-105	2.0	N.D.
13	Mercury (as Hg)	mg/L	APRA 22 <sup>rd</sup> Ed.2012,3112-B, 3-23	0.01	N.D.
14	Arsenic (as As)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.2	N.D.
15	Selenium (as Se)	mg/%	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.05	N.D.
16	Total Chromium (as Cr)	ng/L	APHA 22" Ed. 2012, 3500-Cr-8, 3-69	2.0	N.D.
17	Chemical Oxygen Demand (COD)	ng/L	APHA 22 <sup>rd</sup> Ed.2012, 5520-B, 5-17	250	20.0
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	3.2
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991, RA 2003	10.0	
20	Phenolic Compounds (as C.H.OH)	mg/L	IS 3025 (Part 43):1992, RA 2003	1.0	N.D.

#### REMARKS: mg/fit: milligram per liter, N.D.-Not Detacted. Terms & conditions

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

01/01/2022 AUTHORIZED SIGNATORY

-End of the test report--



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

Name & Address Of The Cus TO, HINDALCO INDU: GARE PALMA - IV VILLAGE - BANK POST -MILUPARA DISTT RAIGARI	STRIES LIMITED, 1/4, COAL MINE, HETA,	ZA DA DA	PORT NO B REF NO TE OF SAMPLING TE OF RECEIPT TE OF REPORT TE OF ANALYSIS	UES/TR/21-22 UES/21-22/W/ 24/01/2022 25/01/2022 02/02/2022 START: 25/01/	010294	
A THE PERMIT		SAMPLE	DETAILS			
SAMPLE TYPE	WASTE WATER		ORDER /REFERENCE	E:		/HRV/2122/0045, 24-JULY-2021
CUSTMER SAMPLE ID	ETP CUTLET BANJIKHOL		SAMPLE COMDITIO	W 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	SEALED	SAMPLE COLLECTE	צוג ס	CHES	ast.
SAMPLING PROCEDURE	IS:3025(PART I):1987 RA 2003/ 22MD ED. 2012, 1060-B, 1-39	АРНА	QUANTITY RECEIV	ED	5 11	DR.

	TEST REPORT								
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1906 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT				
1	Colour	Hazen	APHA 22" Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1				
2	Odour	-	APHA 22 <sup>rd</sup> Ed. 2012,2120-8,2-6	See 6 of Annexure-I	Agreeable				
3	Temperature	+c	APHA 22 <sup>rd</sup> Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.1				
4	pH	-	APHA 22" Ed.2012,4500-H"-B,4-92	5.5 to 9.0	7.46				
5	Total Residual Chlorine	mg/%	APHA 22 <sup>68</sup> Bd.2012,4500-C1-G,4-69	1.0	N.D.				
6	Total Suspended Solids	mg/L	APHA 22 <sup>st</sup> Ed.2012,2540- D, 2-66	100	28.0				
7	Dissolved Phosphate (as P)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-P-C,4-153	5.0	N.D.				
В	Fluoride (as F)	mg/L	APHA 22 <sup>54</sup> Ed.2012,4500-F-B &D, 4- 84 & 87	2.0	N.D.				
9	Lead (as Pb)	mg/L	APRA 22 <sup>M</sup> Ed.2012,3111-B, 3-18	0.1	N.D.				
10.	Einc (as En)	mg/L	APHA 22 <sup>ad</sup> Ed.2012,3111-B, 3-18	5.0	N.D.				
11	Copper (as Cu)	ng/L	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	3.0	N.D.				
12	Cadmium (as Cd)	ng/L	APHA 22" Ed.2012,3500-Cd, 3-105	2.0	N.D.				
13	Mercury (as Hg)	ng/L	APHA 22 <sup>nd</sup> Ed.2012,3112-B, 3-23	0.01	N.D.				
14	Arsenic (as As)	ng/L	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.2	N.D.				
15	Selenium (as So)	ng/L	APHA 22" Ed.2012,3114-C, 3-38	0.05	N.D.				
16	Total Chromium (as Cr)	mg/L	APHA 22" Ed.2012,3500-Cr-8,3-69	2.0	N.D.				
17	Chemical Oxygen Demand (CCD)	mg/L	APHA 22° Ed.2012, 5520-B, 5-17	250	24.0				
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	3.4				
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991, RA 2003	10.0	N.D.				
20	Phenolic Compounds (as C <sub>s</sub> H <sub>5</sub> 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

AUTHORIZED SIGNATORY REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

-End of the test report-



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

Vinne & Address Of The Co. TO, HINDALCO INDU: GARE PALMA – IV VILLAGE – BANK POST -MILUPARA DISTT RAIGARI	STRIES LIMITED, V/4, COAL MINE, HETA, A,	DA DA	FORT NO B REF NO TE OF SAMPLING TE OF RECEIPT TE OF REPORT TE OF ANALYSIS	UES/TR/21-22/W/ 24/02/2022 25/02/2022 01/03/2022 START: 25/02/	013108	
		SAMPLE	DETAILS	SERVICE DE LA COMP		
SAMPLE TYPE	WASTE WATER		ORDER /REFERENC	Et :		/88Y/2122/0045, 24-JULY-2021
CUSTNER SAMPLE ID	ETP OUTLET BANJIKHOL		SAMPLE COMDITIO	W AT RECEIPT	OR	
PACKING OF SAMPLE	3 L X I NO. PVC CAN 1 L X I NO. PVC CAN 1 L X I NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTE	D BY	CHES	HIST
SAMPLING PROCEDURE	IS:3025(PART I):1987 RA 2003/ 22MD ED. 2012, 1060-B, 1-39	АРНА	QUANTITY RECEIV	SED.	5 10	TR.

			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 <sup>nd</sup> Ed. 2012,2120-8,2-6	See 6 of Annexure-I	<1
2	Odour	-	APHA 22 MEd. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable
3	Temperature	·c	APHA 22 <sup>nd</sup> Md.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	24.8
4	pH		APHA 22" Ed.2012, 4500-H"-B, 4-92	5.5 to 9.0	7.36
5	Total Residual Chlorine	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-C1-G,4-69	1.0	N.D.
- 6	Total Suspended Solids	mg/L	APRA 22" Ed.2012,2540- D, 2-66	100	22.0
7	Dissolved Phosphate (as P)	mg/L	APHA 22 <sup>ad</sup> Ed.2012,4500-P-C,4-153	5.0	N.D.
8	Fluoride (as F)	ng/L	RPHA 22 <sup>nd</sup> Ed.2012,4500-F-B 6D, 4- B4 6 87	2.0	N.D.
9	Lead (as Pb)	mg/L	APHA 22° Ed.2012,3111-B, 3-18	0.1	N.D.
10	Einc (as En)	ng/L	APHA 22° Ed.2012,3111-B, 3-18	5.0	N.D.
11	Copper (as Cu)	ng/L	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	3.0	N.D.
12	Cadmium (as Cd)	ng/L	APHA 22 <sup>nd</sup> Ed.2012,3500-Cd, 3-105	2.0	N.D.
13	Mercury (as Hg)	mg/L	APHA 22 <sup>nd</sup> 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)	mg/L	APHA 22" Ed.2012,3114-C, 3-38	0.05	N.D.
16	Total Chronium (as Cr)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3500-Cr-B,3-69	2.0	N.D.
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 <sup>nd</sup> Ed.2012, 5520-B, 5-17	250	30.0
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	4.6
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991, RA 2003	10.0	N.D.
20	Phenolic Compounds (as C <sub>c</sub> H <sub>3</sub> 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 asport for publication, arbitration or an largel disquire in trobidition.
First benefit with the relationed far 18 depts when taxes of last report unless otherwise agreed with exists.
This is to relationalism as the purp has extend for above largely [IMC].

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

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

REPORT NO UES/TR/21-22/08931 TO, LAB REF NO UES/21-22/W/014624 HINDALCO INDUSTRIES LIMITED, DATE OF SAMPLING 28/03/2022 GARE PALMA - IV/4, COAL MINE, DATE OF RECEIPT 29/03/2022 VILLAGE - BANKHETA, DATE OF REPORT 02/04/2022 POST -MILUPARA, DISTT. - RAIGARH (C.G.) 496107 DATE OF ANALYSIS START:29/03/2022 END: 02/04/2022 SAMPLE DETAILS SAMPLE TYPE WASTE WATER ORDER /REFERENCE: M/PO/SEY/2122/0045, DTD: 24-JULY-2021 ETF OUTLET BANJIKHOL

3 L X I NO. PVC CAN

1 L X I NO. PVC CAN

1 L X I NO. GLASS BOTTLE

18:3025/PART I; 1987 RA 2003, APHA
22ND ED. 2012, 1060-B, 1-39 CUSTMEN SAMPLE ID SAMPLE CONDITION AT RECEIPT CK PACKING OF SAMPLE CHARRY SAMPLE COLLECTED BY CHEMIST SAMPLING PROCEDURE QUANTITY RECEIVED 5 LTR

			TEST REPORT		
SR. NO.	PARAMETER	METER UNIT METHOD OF TEST (PROTECTION) RULE: 1986 [SCHEDULE-VI] PART- INLAND SURFACE WAT		THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT
1	Colour	Hasen	APHA 22"Hd. 2012,2120-B,2-6	See 6 of Annexure-1	<1
2	Odour	+	APHA 22 Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable
3	Temperature	'c	APHA 22 <sup>nd</sup> Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.4
4	pli	-	APHA 22° Ed.2012, 4500-H'-B, 4-92	5.5 to 9.0	7.32
5	Total Residual Chlorine	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-C1-G,4-69	1.0	N.D.
6	Total Suspended Solids	mg/L	APHA 22 <sup>86</sup> Ed.2012,2540- D, 2-66	100	20.0
7	Dissolved Phosphate (as P)	mg/L	APHA 22 <sup>ad</sup> Ed.2012,4508-P-C,4-153	5.0	W.D.
Ð	Fluoride (as P)	ng/L	APHA 22** Ed.2012,4500-F-B &D, 4- 84 & 87	2.0	N.D.
9	Lead (as Pb)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	0.1	N.D.
10	Zinc (as Zn)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3111-B, 3-18	5.0	N.D.
11	Copper (as Cu)	mg/L	APBA 22" Ed.2012,3111-B, 3-18	3.0	N.D.
12	Cadmium (as Cd)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3500-Cd, 3-105	2.0	N.D.
13	Mercury (as Hg)	mg/L	APHA 22 <sup>NO</sup> Ed.2012,3112-B, 3-23	0.01	N.D.
14	Arsenic (as As)	mg/L	APHA 22° Ed.2012,3114-C, 3-38	0,2	N.D.
15	Selenium (as Se)	mg/L	APHA 22 <sup>ed</sup> Ed.2012,3114-C, 3-38	0.05	N.D.
16	Total Chromium (as Cr)	ng/L	APHA 22" Ed.2012,3500-Cr-B,3-69	2,0	N.D.
17	Chemical Oxygen Demand (COD)	ng/L	APHA 22 <sup>rd</sup> Ed.2012, 5520-B, 5-17	250	34.0
18	Biochemical Oxygen Demand (BCD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	6.8
19	Oil & Grease	ing/L	IS 3025 (Part 39):1991, RA 2001	10.0	N.D.
20	Phenolic Compounds (as C.B.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 finitelation.
Test sample will be retained for 15 steps after its un of tool report unless arbitralise agreed with

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

2/04 22 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

		STRIES LIMITED, V/4, COAL MINE, CHETA,	DAS DAS DAS	PORT NO SEREF NO THE OF SAMPLING THE OF RECEIPT THE OF REPORT THE OF ANALYSIS	UES/TR/2 UES/21-2 27/10/20 28/10/20 01/11/20 START: 28/	2/W/6284 21 21 21	7-00
	EMPLE TYPE	ELATINAL MULKA		OLDER /REPRORDICE:			
EMPLE TIME EFFLUENT WATER ORDER /REFERENCE: N/DO/SRY/2122/G045, DTG.:24-JULY-2021	CONTRACT SMITTER TO	SUMP NATES PATCH "B"		SAMPLE COMPLETION AS	PROSERT	CM	
DTD.:24-JULY-2021	PACKERG OF SUMPLE	F L X I NO. PVC CAN I L X I NO. PVC CAN I L X I NO. GLASS SOFTLE	AMALES	SHELD COLLECTED R	r	симат	1
CONTROL SUMPLE ID SINT WATER FATCH "B" SAMPLE COMBITTOR AT MECKET? ON FACKING OF SAMPLE I L X I NO. PVC CAN SEALED SAMPLE COLLECTED AT COLLECTED AT CHROSIST	SUPLING PROCEDURE	18:3025(PART 1):3987 RA 2003; AF 2012, 1060-B, 1-39	WA 2280 ED.	QUARTITY RECEIVED		5 LTB	

	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 <sup>rd</sup> Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1					
2	Odour	-	APHA 22 <sup>nd</sup> Ed. 2012,2120-B,2-6	See S of Annexure-I	Agreeable					
3	Temperature	*c	APHA 22 <sup>ml</sup> Ed.2012,2130-8,2-13	Shall not exceed 5°C above the receiving water temperature	24.8					
4.	рH	-	APHA 22 <sup>th</sup> Ed.2012,4500-H'-B, 4- 92	5.5 to 9.0	7.24					
5	Total Residual Chlorine	mg/L	APHA 22° Ed.2012,4500-C1-G, 4 - 69	1.0	N.D.					
6	Total Suspended Solids	mg/L	APHA 22 M Ed. 2012, 2540- D, 2-66	100	48.0					
7	Dissolved Phosphate (as P)	mg/L	АРНА 22 <sup>мв</sup> 8d.2012,4500-P-C, 4- 153	5.0	N.D.					
8	Fluoride (as F)	mg/L	APHA 22** Ed.2012,4500-F-B 4D, 4-84 & 87	2.0	N.D.					
9	Lead (as Pb)	mg/L	APHA 22*8 Ed.2012,3111-B, 3-18	0.1	N.D.					
10	Zinc (as Zn)	ng/L	APHA 22° Ed.2012,3111-B, 3-18	5.0	N.D.					
11	Copper (as Cu)	ng/L	APHA 22" Ed.2012,3111-B, 3-18	3.0	N.D.					
12	Cadmium (as Cd)	ng/L	APHA 22** Ed.2012,3500-Gd, 3-105	2.0	N.D.					
13	Mercury (as Hg)	ng/L	APHA 22 <sup>st</sup> Ed.2012,3112-B, 3-23	0.01	N.D.					
14	Arsenic (as As)	ng/L	APHA 22 <sup>cd</sup> Ed.2012,3114-C, 3-38	0.2	N.D.					
15	Selenium (as Se)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3114-C, 3-38	0.05	N.D.					
16	Total Chromium (as Cr)	mg/L	APHA 22" Ed.2012,3500-Cr-B,3-69	2.0	N.D.					
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 <sup>nd</sup> Ed.2012, 5520-B, 5-17	250	114.0					
18	Biochemical Oxygen Demand (BOD)	ng/L	IS 3025 (Fart 44):1993, RA 2003	30	12.8					
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,RA 2003,	10.0	N.D.					
20	Phenolic Compounds (as C <sub>4</sub> H <sub>2</sub> OB)	mg/L	15 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, enterration or as legal dispote in four-Fest sample will be relatived for 13 days after issue of two pools. This is for information as the party has asked for above party opin

01111 REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report-



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

TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST MILUPARA, DISTT RAIGARH (C.G.) 496107		REPORT NO  LAB REF NO  DATE OF SAMPLING  DATE OF RECEIPT  DATE OF REPORT  DATE OF ANALYSIS		UES/TR/21-22/04173 UES/21-22/W/07487 23/11/2021 24/11/2021 01/12/2021 START: 24/11/2021 END: 27/11/2021		
		SAMPLE	E DETAILS			
DOMESTING	REFERENCE NAMES	OKINE /MONIMINICE:			F/2122/0045, -PULY-2021	
COURSE SAMPLE ID	PRINCE TO STORY HAVEN PARCH "N"			SAMPLE CONDITION AT RECEIPT		ALTERNATION .
VACCING OF SAMPLE 3 1 X 1 NO. PVC CAR 1 1 X 1 NO. PVC CAR 1 1 X 1 NO. STACK DOTTLE		SPACE COTTECLED SA.		CHARLET		
SAMPLING PROCEDURE 18:3025(PART 1):1987 RA 2003/ APRA 22ND ED. 2012, 1060-8, 1-38			QUARTETY BROKENSO		S LIN	

	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 <sup>10</sup> Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1.			
2	Odour	+	APHA 22 <sup>mg</sup> Ed. 2012,2120-B,2-6	See 6 of Armenuce-1	Agreeable			
3	Temperature	16	APRA 22**Ed.2012,2130-8,2-13	Shall not exceed 5°C shove the receiving water temperature	24.6			
4	рн	-	APHA 22 <sup>ss</sup> Ed.2012,4500-H'-B, 4- 92	5.5 to 9.0	7.34			
5	Total Residual Chlorine	mg/L	APHA 22 <sup>MB</sup> 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	46.0			
7	Dissolved Phosphate (as P)	mg/L	APHA 22 <sup>ml</sup> Ed.2012,4500-P-C, 4- 153	5.0	N.D.			
8	Fluoride (as F)	mg/L	APHA 22 <sup>ml</sup> Ed.2012,4500-F-B &D, 4-84 & 87	2.0	N.D.			
9	Lead (as Pb)	mg/L	APHA 22" Ed.2012,3111-B, 3-18	0.1	N.D.			
10	Zinc (as En)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	5.0	N.D.			
11	Copper (as Cu)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3111-8, 3-18	3.0	N.D.			
12	Cadmium (as Cd)	mg/t	APHA 22" Rd. 2012, 3500-Cd, 3-105	2.0	N.D.			
13	Mercury (as Hg)	mg/L	APHA 22" Ed.2012,3112-B, 3-23	0.01	N.D.			
14	Arsenic (as As)	mg/L	AFHA 22" Ed.2012,3114-C, 3-38	0.2	N.D.			
15	Selenium (as So)	ng/L	APHA 22" Ed.2012,3114-C, 3-38	0.05	N.D.			
16	Total Chromium (as Cr)	ng/L	APHA 22 Bd.2012,3500-Cr-B,3-69	2.0	N.D.			
17	(COD)	ng/L	APHA 22 <sup>MB</sup> 86,2012, 5520-B, 5-17	250	64.0			
1.8	Biochemical Oxygen Demand (BOD)	ng/L	IS 3025 (Part 44):1993, SA 2003	30	5.8			
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991, RA 2003,	10.0	N.D.			
20	Phenolic Compounds (as CaHsOH)	ng/L	IS 3025 (Part 43):1992,RA 2003	1.0	N.D.			

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report-



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

TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST MILUPARA, DISTT RAIGARH (C.G.) 496107		REFORT NO LAB RET NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS		UES/TE/21-22/04916 UES/21-22/W/08755 22/12/2021 23/12/2021 01/01/2022 START: 24/12/2021 END: 28/12/2022		70
DISTT KATOAK	11 (0.0.) 430107	SAMPLI	E DETAILS			
SARLE TOTE	ENVIOUNT WATER		ORDER /REFERENCE:			V/2122/0045, -JULY-8021
COURSE SHELL ID	GIMP WATER PARCE "B"		SOUPLE CONDITION AT ABORDET		GK GK	
PACKING OF SAMPLE 3 1 X 1 MO. PVC CAN 1 L X 1 MO. PVC CAN 1 L X 1 MO. GLASS MOTTLE		SWARTE CONTECLED BA		CMDGST		
SAMPLING PROCESSING	IS:3035(PART E):1907 RA 2003; APRA 2200 ED, 2012, 1040-8, 1-20		CONNACAA WOORLAND		S are	

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"Ed. 2012,2120-8,2-6	See 6 of Annexure-I	<1		
2	Odour	-	APHA 22"Ed. 2012,2120-8,2-6	See 6 of Annexure-I	Agreeable		
3	Temperature	*c	APHA 22 <sup>rd</sup> Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25,1		
48	PH	(6)	APHA 22 <sup>nd</sup> Ed.2012,4500-H <sup>+</sup> -B, 4- 92	5.5 to 9.0	7.42		
5	Total Residual Chlorine	mg/L	APHA 22 <sup>M2</sup> 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	48.0		
7.	Dissolved Phosphate (as P)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-F-C, 4- 153	5.0	N.D.		
8	Pluoride (as F)	mg/L	APHA 22" Ed.2012,4500-F-B 6D, 4-84 6 87	2.0	N.D.		
9	Lead (as Pb)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	0.1	N.D.		
1.0	Zinc (as En)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	5.0	N.D.		
1.1	Copper (as Cu)	mg/L	APHA 22" 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 <sup>rd</sup> Ed.2012,3112-B, 3-23	0.01	N.D.		
14	Arsenic (as As)	mg/1,	APHA 22 <sup>rd</sup> Ed.2012,3114-C, 3-38	0.2	N.D.		
1.5	Selenium (as Se)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3114-C, 3-38	0.05	N.D.		
16	Total Chromium (as Cr)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3500-Cr-B,3-69	2.0	N.D.		
17	Chemical Oxygen Demand (COD)	mg/1	APHA 22 <sup>M</sup> Ed.2012, 5520-B, 5-17	250	68.0		
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	5,2		
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,RA 2003,	10.0	N.D.		
20	Phenolic Compounds (as C <sub>c</sub> H <sub>s</sub> ON)	mg/L	IS 3025 (Part 43):1992,RA 2003	1.0	N.D.		

Terms & conditions

> The report for publication, entirestice or as Jayal dispute is forbibbles

Test sample will be retained for 15 days after issue of less report witers adjorwise agreed with customer.

PREVIEWED BY

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 Easterner TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST MILUPARA, DISTT RAIGARH (C.G.) 496107			REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS		UES/TR/21-22/05977  UES/21-22/W/010295  24/01/2022  25/01/2022  02/02/2022  START: 25/01/2022 END: 29/01/2022		
67 78 78	188 Mantes	SAMPL	E DETAILS	/m	1000		
SMPLE TYPE	REPAULET WATER		ORDER /BEFERRENCE:			V/2122/0045, -JULY-2021	
COSMEN SAMPLE ID	NUMB WATER FATCH "B"		SMPLE 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. GEARS POTTE		SHARK COTTECLED BA		CHRIST			
SAMPLING PROCEDURE	TO-3038/9839 T1-1687 H2 3025- 2992 3390 ET			QUANTITY PROBLEMS		5 129	

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 <sup>rd</sup> Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1
2	Odour	-	APHA 22 <sup>nd</sup> Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agresable
3	Temperature	*c	APHA 22 <sup>rd</sup> Hd.2012,2130-H,2-13	Shall not exceed 5'C above the receiving water temperature	25.8
4	pii	-	APHA 22 <sup>tf</sup> Ed.2012,4500-H'-B, 4- 92	5.5 to 9.0	7.47
5	Total Residual Chlorine	ng/L	APHA 22*8 Ed.2012,4500-C1-G, 4 - 69	1.0	N.D.
6	Total Suspended Solids	ng/L	APHA 22 <sup>nd</sup> Ed.2012,2540- D, 2-66	100	50.4
7	Dissolved Phosphate (as P)	ng/L	APHA 22 <sup>MT</sup> Ed.2012,4500-F-C, 4- 153	5.0	N.D.
8	Fluoride (as F)	ng/L	APHA 22 <sup>nd</sup> Ed.2012,4500-F-B &D, 4-B4 & B7	2.0	N.D.
9	Lead (as Pb)	mg/L	APNA 22 <sup>tol</sup> Ed.2012,3111-B, 3-18	0.1	N.D.
10	Zinc (as Zn)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	5.0	N.D.
11	Copper (as Cu)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	3.0	N.D.
12	Cadmium (as Cd)	mg/L	APHA 22 <sup>od</sup> Ed.2012,3500-Cd, 3-105	2.0	N.D.
13	Mercury (as Hg)	mg/L	APHA 22" Ed.2012,3112-B, 3-23	0.01	N.D.
14	Arsenic (as As)	mg/L	APHA 22" 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" Ed. 2012, 3500-Cr-B, 3-69	2.0	N.D.
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 <sup>nd</sup> Ed.2012, 5520-B, 5-17	250	64.0
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	4.6
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991, RA 2003,	10.0	N.D.
20	Phenolic Compounds (as C,E,OH)	ng/L	IS 3025 (Part 43):1992,RA 2003	1.0	N.D.

Terms & conditions

The report for publication, arbitration or an ingel dispute in Sorbio

Test sample will be related for 15 days after insee of test report in

This is for information as the party has asked for above insign or

02/02 122 AUTHORIZED SIGNATORY REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

-End of the test report-



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

Name & Address Of The & TO, HINDALCO INDUS GARE PALMA - IV. VILLAGE - BANKH POST MILUPARA, DISTT RAIGARH	TRIES LIMITED, 4, COAL MINE, IETA,	DA:	PORT MO B REF NO TE OF SAMPLING TE OF RECEIPT TE OF REPORT	UES/TR/21 UES/21-22 24/02/202 25/02/202 01/03/202 START: 25/	?/W/01310 ?2 ?2 ?2		2022
SHEZE TIPE	SFFLORST WATER	SAMPL	CRURE /REVENENCE:		M/PO/SRI	//2122/0045.	DED. 24
CONTRACT SAMPLE ID	SUMP WATER PATCH "B"		SMPTH CONDITION AT	- BECTETOT	JULY-202		
PACKING OF SAMPLE .	5 L X I BO. FVC CAN I L X I BO. FVC CAN I L X I BO. GLARG BOTTER	SEALED	SAMPLE COLLECTED BY		CHENTET		
WANTAING PROCESSION	26:3023/PART I):1987 BA 2003; APH 2012, 1060-B, 1-39	A JUNU MD.	QUANTITY RECEIVED	-	5 15R		4

			TEST REPORT		
SR. NO.	PARAMETER			THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT
2	Odmir	Hazen	APHA 22"Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1
2	Goode	-	APHA 22"Ed. 2012,2120-B,2-6	See 6 of Armexure-1	Agreeable
3	Temperature	*c	APHA 22 <sup>ed</sup> Ed.2012,2130-B,2-13	Shall not exceed 5'C above the receiving water temperature	26.4
4	pli		APHA 22" Ed.2012,4500-H"-B, 4- 92	0-H"-B, 4- 5.5 to 9.0	
5	Total Residual Chlorine	ng/L	APHA 22 <sup>66</sup> Ed.2012,4500-C1-G, 4 - 69	1.0	N.D.
6	Total Suspended Solids	mg/L	APHA 22 <sup>nd</sup> Ed.2012,2540- D, 2-66	100	48.4
7	Dissolved Phosphate (as P)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-P-C, 4- 153	5.0	N.D.
8	Fluoride (as F)	ng/L	APHA 22 <sup>ME</sup> Ed.2012,4500-F-B &D, 4-84 & 87	2.0	N.D.
9	Lead (as Pb)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	0.1	N.D.
10	Zinc (as En)	mg/L	APMA 22nd Ed.2012,3111-B, 3-18	5.0	N.D.
11	Copper (as Cu)	mg/L	APHA 22 H Ed. 2012, 3111-B, 3-18	3.0	N.D.
12	Cadmium (as Cd)	ng/L	APHA 22" Ed. 2012, 3500-Cd, 3-105	2.0	- Common -
13	Mercury (as Hg)	mg/L	APHA 22** Ed.2012,3112-B, 3~23	0.01	N.D.
14	Arsenic (as As)	mg/L	APHA 22" Ed.2012,3114-C, 3-38	0.2	N.D.
15	Selenium (as Se)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3114-C, 3-38	0.05	N.D.
16	Total Chromium (as Cr)	mg/L	APHA 22nd Ed. 2012, 3500-Cr-9, 3-69	2.0	N.D.
17	Chemical Oxygen Demand (COD)	ng/L	APHA 22** Ed.2012, 5520-B, 5-17	250	N.D. 48.0
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	6.8
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,8A 2003,	57.50	12070
20	Phenolic Compounds (as CeRyOH)	ng/L	IS 3025 (Part 431:1992, RA 2003	10.0	N.D.

Terms & conditions

The report for publication, artification or an legal dispute is forbidden

That sample will be retained for this says after come of tool report unless attraces agreed with continue.
This is for information as the party of the continue.

REVIEWED BY

End of the test

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

----End of the test report-



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

TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST MILUPARA, DISTT RAIGARH (C.G.) 496107		DAS DAS	PORT NO REFER NO DE OF SAMPLING DE OF RECEIPT DE OF REPORT DE OF ANALYSIS	UES/TR/21 UES/21-22 28/03/202 29/03/202 02/04/202 START:29/	2/W/01462 22 22 22		1022
	- Committee of the Comm	SAMPL	E DETAILS			A CONTRACTOR	Total T
SHATE LIME	ENTLOWE WATER		CROSS /NEFESSIONES:		8/20/88/ JULY-20:	7/2132/8045, 11	DZD, 24
CONTINUE SAMPLE ZD	SUMP WATER PATCH "B"		SAMPLE CONDITION AT	PROSERT	OK		
PACKING OF SAMPLE JIX I WO. PWC CAP IIX I NO. PWC CAP IIX I NO. GLASS BOTTLE		SEALED	SAMPLE COLLECTED BY	e:	CHENTST		
SAMPLING PROCEDURE 18:3025(PART I):1807 NA 2003/ APRIL 22ND ED. 2012, 1060-8, 1-39			GENERAL STAM				

			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° Ed. 2012,2120-H,2-6	See 6 of Annexure-I	<1
2	Odour	-	APHA 22"ded, 2012,2120-B,2-6	See 6 of Annexure-1	Agreeable
3	Temperature	*c	APHA 22 <sup>rd</sup> Ed.2012,2130-8,2-13	Shall not exceed 5°C above the receiving water temperature	25.5
4	pit	34	APHA 22 <sup>rd</sup> Ed.2012,4500-H <sup>4</sup> -B, 4- 92	5.5 to 9.0	7.62
5	Total Residual Chlorine	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-C1-G, 4 - 69	1.0	N.D.
6	Total Suspended Solids	ng/L	APHA 22 <sup>56</sup> Ed.2012,2540- D, 2-66	100	54.2
7	Dissolved Phosphate (as P)	ng/L	АРНА 22° Ed.2012,4500-Р-С, 4- 153	5.0	N.D.
8	Fluoride (as F)	mg/L	APHA 22 <sup>MS</sup> Ed.2012,4500-F-B 4D, 4-84 & 87	2.0	N.D.
9	Lead (as Pb)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3111-B, 3-18	0,1	N.D.
10	Zinc (as Zn)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3111-B, 3-18	5.0	N.D.
11	Copper (as Cu)	mg/L	APBA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	3.0	N.D.
12	Cadmium (es Cd)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3500-cd, 3-105	2,0	N.D.
13	Mercury (as Hg)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3112-B, 3-23	0.01	N.D.
14	Arsenic (as As)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3114-C, 3-38	0.2	N.D.
15	Selenium (as Se)	mg/L	APHR 22" Ed.2012,3114-C, 3-38	0.05	N.D.
16	Total Chromium (as Cr)	mg/L	APMA 22" Ed.2012,3500-Cr-8,3-69	2.0	N.D.
17	Chemical Oxygen Demand (COD)	ng/L	APMA 22 <sup>nd</sup> Ed.2012, 5520-B, 5-17	250	42.0
18	Biochemical Oxygen Demand (BCD)	ng/L	IS 3025 (Part 44):1993, RA 2003	30	8.4
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,RA 2083,	10.0	N.D.
20	Phenolic Compounds (as C.H.OH)	mg/L	IS 3025 (Part 43):1992, RA 2003	1.0	N.D.

#### Terms & conditions

The report for publication, infulliation or as legal chapate in fluidation.

Test sample will be retained for LS days after trace of test report unless oft

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report-



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

TO, HINDALCO INDU GARE PALMA - I' VILLAGE - BANK POST MILUPARA DISTT RAIGAR	DAS DAS	PORT NO REFERO R	UES/TR/21 UES/21-22 27/10/202 28/10/202 01/11/202 START: 28/1	/W/6285 1 1 1		
		SAMPL	E DETAILS			
SAMPLE TYPE	KEYSUKNY WATEN		ORDER /HETERENCE:	WENCE: N/PO/SRV/2122/ DTD::24-JULY-		
COURSES SAMPLE ID	SUMP WATER PATCH "C"		SAMPLE COMPLETION A	AT RECEIPT	OK	
PACKING OF EAMPLE 3 L X 1 MO. PVC CAM SEALED 1 L X 1 MO. PVC CAM SEALED 1 L X 1 MO. BLAZE MODILE		STEALER	SMALE CONTECTED I	er	CHOCAT	
SAMPLING PROCEDURE	Tel-9020 (maper 11, 1407 Na 2003, Appa 2000 etc.				5 LTR	

			Maria de la companya	THE ENVIRONMENT	
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	(PROTECTION) RULES, 1996 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT
1	Colour	Hazen	APHA 22"Bd. 2012,2120-B,2-6	See 6 of Annexure-I	<1
2	Odour	-	APHA 22"Ed. 2012,2120-B,2-6	See 6 of Annexura-1	Agreeable
3	Temperature	°C	арна 22 <sup>ml</sup> Ed.2012,2130-В,2-13	Shall not exceed 5°C above the receiving water temperature	25.2
4	рн	-	АРНА 22 <sup>nf</sup> Ed.2012,4500-H <sup>7</sup> -B, 4- 92	5.5 to 9.0	7.36
5	Total Residual Chlorine	mg/L	APMA 22 <sup>M</sup> Ed.2012,4500-C1-G, 4 - 69	1.0	N.D.
6.	Total Suspended Solids	mg/L	APHA 22 <sup>nd</sup> Ed.2012,2540- D, 2-66	100	46.0
7	Dissolved Phosphate (as P)	mg/1.	APHA 22 <sup>ml</sup> Ed.2012,4500-P-C, 4- 153	5.0	N.D.
8	Fluoride (as F)	mg/L	APHA 22 <sup>ml</sup> Ed.2012,4500-F-B aD, 4-84 & 87	2.0	N.D.
9	Lead (as Pb)	mg/L	APHA 22 <sup>nd</sup> 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	N.D.
11	Copper (as Cu)	mg/L	APHA 22" Ed.2012,3111-B, 3-18	3.0	N.D.
12	Cadmium (as Cd)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3500-Cd, 3-105	2.0	N.D.
13	Mercury (as Hg)	mg/2	APHA 22" Ed.2012,3112-B, 3-23	0.01	N.D.
14	Arsenic (as As)	mg/%	APHA 22" Ed.2012,3114-C, 3-38	0.2	N.D.
15	Selenium (as Se)	mg/L	APHA 22 <sup>nd</sup> Bd.2012,3114-C, 3-38	0.05	N.D.
16	Total Chromium (as Cr)	ng/L	APHA 22" Ed.2012,3500-Cr-B,3-69	2.0	N.D.
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 <sup>MB</sup> Ed.2012, 5520-B, 5-17	250	52.0
18	Biochemical Oxygen Demand (BOD)	ng/L	18 3025 (Part 44):1993, RA 2003	30	4.2
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,RA 2003,	10.0	N.D.
20	Phenolic Compounds (as C.H.OH)	ng/L	IS 3025 (Fart 43):1992,RA 2003	1.0	N.D.

#### Terms & conditions

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

For ULTIMATE ENVIROLYTICAL SOLUTIONS Thuck 1 AUTHORIZED SIGNATORY REVIEWED BY

-End of the test report----



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

TO,  TO,  HINDALCO INDUSTRIES LIMITED,  GARE PALMA – IV/4, COAL MINE,  VILLAGE – BANKHETA,  POST MILUPARA,  DISTT RAIGARH (C.G.) 496107		DAT DAT	FORT NO REFERENCE FOR SAMPLING FOR OF RECEIPT FOR OF REFORE FOR ANALYSIS	UES/TR/21-2 UES/21-22/\\ 23/11/2021 24/11/2021 01/12/2021 START: 24/11	#/07488	ENO: 27/11/2021
		SAMPL	E DETAILS			
SARCE TIPE	KNYLOENT WATER	100000000000000000000000000000000000000	ORDER /SUFERIENCE:	M/PO/SHV/2122/0045, DPO. 24-JULY-2031		
CONTRACT SAMPLE 19	ER SAMPLE 19 20MP MATER PATCH "C"		SAMPLE CONDITTON	AT RECEIPT	OR .	
I 1 % 1 MO. GLASS BOTTLE		BEALED	SAMPLE COLLECTED I	RT.	овит	ir
SMP128G PROCEDURE	THE BOOK PROPERTY LEGISLE THE SOURCE APPEAR SOURCE AND		QUARTETY PROBLEMS		.5 am	

			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 <sup>nd</sup> Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1
2	Odour	-	APHA 22 <sup>ml</sup> Ed. 2012,2120-B,2-6	Hee 6 of Annesure-I	Agreeable
3	Temperature	*4	APHA 22 <sup>nd</sup> Ed.2012,2130-8,2-13	Shall not exceed 5°C above the receiving water temperature	25.4
4	pit	-	APRA 22 <sup>st</sup> Ed.2012,4500-B'-B, 4- 92	5.5 to 9.0	7.19
5	Total Residual Chlorine	mg/L	APHA 22 <sup>mt</sup> 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	24.0
7	Dissolved Phosphate (as P)	mg/l	APHA 22" Ed.2012,4500-P-C, 4- 153	5.0	N.D.
Ð	Fluoride (as P)	mg/L	APHA 22" Ed.2012,4500-F-B 6D, 4-84 & 87	2.0	N.D.
9	Lead (as Pb)	mg/L	APHA 22 <sup>nd</sup> Ed. 2012, 3111-B, 3-18	0.1	N.D.
10	Zinc (as En)	mg/L	APHA 22" Ed.2012,3111-B, 3-18	5.0	N.D.
11	Copper (as Cu)	mg/L	AFHA 22" Ed.2012,3111-B, 3-18	3.0	N.D.
12	Cadmium (as Cd)	mg/L	APHA 22 <sup>ml</sup> Ed.2012,3500-Cd, 3-105	2.0	N.D.
13	Mercury (as Hg)	mg/L	APHA 22" Ed.2012,3112-B, 3-23	0.01	N.D.
14	Arsenic (as As)	mg/L	APHA 22" Ed.2012,3114-C, 3-38	0.2	N.D.
15	Selenium (as So)	mg/L	APHA 22" Ed.2012,3114-C, 3-38	0.05	N.D.
16	Total Chromium (as Cr)	mg/L	APHA 22 <sup>ml</sup> Ed.2012,3500-Cr-B,3-69	2.0	N.D.
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 <sup>nt</sup> Ed.2012, 5520-B, 5-17	250	56.0
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	2.1
3.9	Cil & Grease	mg/L	IS 3025 (Part 39):1991, RA 2003,	10.0	N.D.
20	Phenolic Compounds (as C <sub>6</sub> H <sub>6</sub> OH)	mg/L	IS 3025 (Part 43):1992,RA 2003	1.0	N.D.

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

Forms & conditions

The report for publication, arbitrarium or an legal dispute in formation.

That simple will be retained for 15-rays after focus of lest-required striking offerwise agreed with customer.
This is for inhomorrous as the poors has eached for above agreed with the control of the c

Phuelf 01112/27 REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report-



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

GARE PALMA - I VILLAGE - BANK	ISTRIES LIMITED, V/4, COAL MINE, KHETA,	DA:	PORT NO B REF NO TE OF SAMPLING TE OF RECEIPT	UES/TM/21- UES/21-22/ 22/12/2021 23/12/2021	W/08756	
POST MILUPARA		DAS	TE OF REPORT	01/01/2022		
DISTT RAIGAR	H (C.G.) 496107	DAS	TE OF ANALYSIS	START: 24/12/2021		END: 28/12/2021
		SAMPL	E DETAILS			
SAPLE TIPE	EXACTORIAL MY MAN		CREDER /WENTERSON:		W/PO/S	89/2122/6045.
CHAMMA STRATE TO	SUMP RATES PARCH "C"		SAMPLE CONDESSOR A	w assessed	DED, 24-JULY-2021	
ACKING OF SAMPLE 3 1 X 1 NO. FFG CAN 1 2 X 1 NO. FFG CAN 1 5 X 1 NO. GLASS SOFTIE		BEALKO	SUCTE COLUMNS I	20	CMD425	2
SAMPLING PROCEDURE			QUANTITY SECRIVED		5 Lm	

			TEST REPORT		
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1988 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT
2	Odour	Hazen	APHA 22 Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1
-	- Constant	-	APHA 22"Ed. 2012,2120-B,2-6	See 6 of Anneaure-1	Agreeable
3	Temperature	*d	APHA 22 <sup>rd</sup> Ed.2012,2130-B,2-13	Shell not exceed 5°C above the receiving water temperature	25.2
4	pii	-	APHA 22 <sup>M2</sup> Ed.2012,4500-H°-B, 4- 92	5.5 to 9.0	7,19
5	Total Residual Chlorina	mg/L	APHA 22" Ed.2012,4500-C1-G, 4 - 69	1.0	N.D.
6	Total Suspended Solids	mg/L	APHA 22 <sup>rd</sup> Ed.2012,2540- D, 2-66	100	28.0
7	Dissolved Phosphate (as P)	ng/L	APHA 22" Ed.2012,4500-P-C, 4- 153	5.0	N.D.
8	Pluoride (as P)	mg/L	APHA 22 <sup>ml</sup> Ed.2012,4500-F-8 6D, 4-84 & 87	2.0	N.D.
.9	Lead (as Pb)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3111-8, 3-18	0.1	
10	Zinc (as En)	ng/L	APHA 22** Ed.2012,3111-B. 3-18	5.0	N.D.
11	Copper (as Cu)	mg/L	APHA 22" Ed.2012,3111-B, 3-18	3.0	N.D.
12	Cadmium (as Cd)	mg/L	AFHA 22" Ed. 2012, 3500-Cd, 3-105	2.0	N.D.
13	Mercury (as Hg)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3112-B, 3-23	0.01	N.D.
14	Armenic (as As)	mg/L	APHA 22** 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" Ed.2012,3500-Cr-B,3-69	2.0	N.D.
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 <sup>MB</sup> Ed.2012, 5520-B, 5-17	250	N.D. 52.0
18	Biochemical Oxygen Demand (BOD)	ng/L	IS 3025 (Part 44):1993, RA 2003	30	(2775.0)
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,RA 2003,		2.4
20	Phenolic Compounds (as C.H.OH)	mg/L	IS 3025 (Part 43):1992,9A 2003	10,0	N.D.

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

REVIEWED BY

This report for publication, artificience or six legal disputs in forbidden.

Total sample will be returned for 1500go after result of leaf report options otherwise agreed with customer.

C 1:

-End of the test report-

Por ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY



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

Name & Address Of The TO, HINDALCO INDU GARE PALMA – I' VILLAGE – BANK POST MILUPARA DISTT RAIGAR	DAS DAS	GRT MO I REF MO TO OF SAMPLING TO OF RECEIPT TO OF REPORT TO OF ANALYSIS	UES/TR/21- UES/21-22/ 24/01/2022 25/01/2022 02/02/2022 START: 25/0	W/010296		
Marie Pale Pale		SAMPLI	E DETAILS		-50	DOCUMENT ON THE
SAMPLE TYPE	SEFAUSIF NACES		опля /житиличен:			RV/2122/0045, 4-JULY-2021
CONTINUE SAMPLE ID	SING NATION FATCH "C"		SAMPLE CONDITION A	AT RECEIPT	OK	
PACKING OF SAMPLE J. L. X. I. NO. PVC CAN 1 L. X. I. NO. PVC CAN L. L. X. I. NO. PVC CAN L. L. X. I. NO. ELASS SOTTLE			SAMPLE COLLECTED BY		смысст	
SAMPLING PROCESSOR: 12:3025(PART 2):1987 RA 2003; AFWA 22ND ED. 2012, 1060-B, 1-39			QUARTETY RECEIVED		5 500	1.4

			TEST REPORT			
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1988 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT	
1	Colour	Hazen	APHA 22 <sup>nd</sup> Ed. 2012,2120-8,2-6	See 6 of Annexure-I	<1	
2	Odour	-	APHA 22 <sup>nd</sup> Ed. 2012,2120-8,2-6	See 6 of Annexure-I	Agreeable	
3	Temperature	*c	APHA 22 <sup>nd</sup> Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.4	
4	pH	200	APHA 22 <sup>M</sup> Ed.2012,4500-H°-B, 4- 92	5.5 to 9.0	7.29	
5	Total Residual Chlorine	mg/1,	APHA 22 <sup>M</sup> Ed.2012,4500-C1-G, 4 - 69	1.0	N.D.	
6:	Total Suspended Solids	mg/L	APHA 22° 8d.2012,2540- D, 2-66	100	32.0	
7	Dissolved Phosphate (as P)	ng/L	APHA 22** Bd.2012,4500-P-C, 4- 153	5.0	N.D.	
В	Fluoride (as F)	ng/L	APHA 22 <sup>st</sup> Ed.2012,4500-F-B &D, 4-84 & 87	2.0	N.D.	
9	Lead (as Pb)	mg/L	APHA 22 <sup>sd</sup> 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	N.D.	
11	Copper (as Cu)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3111-B, 3-18	3.0	N.D.	
12	Cadmium (as Cd)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3500-Cd, 3-105	2.0	N.D.	
13	Mercury (as Hg)	mg/L	APHA 22" Ed.2012,3112-B, 3-23	0.01	N.D.	
14	Arsenic (as As)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.2	N.D.	
15	Selenium (as Se)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3114-C, 3-38	0.05	N.D.	
16	Total Chronium (as Cr)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3500-Cr-B,3-69	2.0	N.D.	
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 <sup>nst</sup> Ed.2012, 5520-B, 5-17	250	60.0	
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	2.8	
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,RA 2003,	10.0	N.D.	
20	Phenolic Compounds (as CoH <sub>0</sub> OH)	mg/L	IS 3025 (Part 43):1992,RA 2003	1.0	N.D.	

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

REVIEWED BY

The report for publication, arbitration or an regal slapure is forbiddee

That sample will be related for 15-tays after leave of rest report unless otherwise agreed with customer.
 This is fair information as the party has enled for above test(s) only.

Duck 1222

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report-



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

TO, HINDALCO INDU GARE PALMA - I'V VILLAGE - BANK POST MILUPARA DISTT RAIGAR	STRIES LIMITED, V/4, COAL MINE, HETA,	DAT DAT	ORT NO REF NO TO OF SAMPLING TO OF RECEIPT TO OF REPORT TO OF ANALYSIS	UES/TR/21-22/07926 UES/21-22/W/013110 24/02/2022 25/02/2022 01/03/2022 START:25/02/2022 END:01/03/2022				
		SAMPLE	E DETAILS					
SUPLE TOTE	KRYGUKUT WACKER		CRIMIN / PROFESSIONALS:		3/90/8 JULY-2	MW/2122/0045, DTD. 24- 021		
CIVITMER SAMPLE ID	SUMP NATES PARCH "C"		SMAPLE COMDITION .	AT RECEIPT	OK			
PACKING OF SAMPLE	3 E E I WO. FVC CAF I L E I WO. FVC CAH I L E I WO. GLASS BOTTLE	SEALED	SMALE COLLECTED )	ex	(38047.0			
SAMPLENG PROCESSING	18:3035(PART I):1907 NA 2003: APT 2012, 1060-R, 2-39	MA JEWD RD.	QUARTITY RECEIVED		5 277			

			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 <sup>nd</sup> Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1
2	Odour	Contract Tour	APHA 22"Ed. 2012,2120-8,2-6	See # of Annexure-1	Agreeable
3	Temperature	*c	APHA 22 <sup>md</sup> Ed.2012,2130-B,2-13	Shall not exceed 5'C above the receiving water temperature	25.6
4	рн	+	APHA 22 <sup>nd</sup> Ed.2012,4500-H*-B, 4- 92	5.5 to 9.0	7.54
5	Total Residual Chlorine	mg/L	APHA 22 <sup>ml</sup> 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	44.0
7	Dissolved Phosphate (as P)	mg/L	АРНА 22 <sup>M</sup> Ed.2012,4500-Р-С, 4- 153	5.0	N.D.
8	Fluoride (as F)	mg/L	APHA 22 <sup>MT</sup> Ed.2012,4500-F-B &D, 4-84 & 87	2.0	N.D.
9	Lead (as Pb)	mg/L	APHA 22" Ed.2012,3111-8, 3-18	0.1	N.D.
10	Zinc (as Zn)	ng/L	APHA 22 M Ed. 2012, 3111-B, 3-18	5.0	N.D.
11	Copper (as Cu)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-19	3.0	N.D.
12	Cadmium (as Cd)	ng/L	APHA 22 Ed. 2012, 3500-Cd, 3-105	2.0	N.D.
13	Mercury (as 'Hg)	mg/L	APHA 22 <sup>st</sup> Ed.2012,3112-B, 3-23	0.01	N.D.
14	Arsenic (as As)	ng/L	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.2	N.D.
15	Selenium (as Se)	mg/L	APHA 22 <sup>sd</sup> Ed.2012,3114-C, 3-38	0.05	N.D.
16	Total Chronium (as Cr)	ng/L	APHA 22 <sup>st</sup> Ed.2012,3500-Cr-B,3-69	2.0	N.D.
17	Chemical Oxygen Demand (COD)	ng/L	APHA 22 <sup>st</sup> Ed.2012, 5520-B, 5-17	250	54.0
18	Biochemical Oxygen Demand (BOD)	ng/L	IS 3025 (Part 44):1993, RA 2003	30	2.6
19	Oil & Grease	ng/L	IS 3025 (Part 39):1991,RA 2003,	10.0	N.D.
20	Phenolic Compounds (as CrH:OH)	mg/%	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, aristration or as logal dispute is forbidden.

Tost sample will be retained for fishing after issue of tost report amings otherwise agreed with customs.

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report-



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

Hame & Address Of The Contohor REPORT NO UES/TR/21-22/08933 TO, LAB REF NO UES/21-22/W/014626 HINDALCO INDUSTRIES LIMITED, DATE OF SAMPLING 28/03/2022 GARE PALMA - IV/4, COAL MINE, DATE OF RECEIPT 29/03/2022 VILLAGE - BANKHETA, DATE OF REPORT 02/04/2022 POST MILUPARA, DATE OF ANALYSIS START: 29/03/2022 KND: 02/04/2022 DISTT. - RAIGARH (C.G.) 496107 SAMPLE DETAILS SAMPLE TYPE REFERENT WATER CRIDER /REPRESENCE: M/PO/68V/2122/0945, JULY-2051 DED. 24-CTIETHER SAMPLE IN DOME NATED PATCH "C" SAMPLE CONDITION AT RECEIPT dW. 1 L X 1 NO. FVC CAN 1 L X 1 NO. EVC CAN 1 L X 1 NO. CLASS BOTTLS 2012, 1060-8, 1-39 PACKING OF EMPLE SAMPLE COLLECTED BY CNDCSS SAMPLING PROCEDURE QUARTITY RECEIVED 5 578

	THE ENVIRONMENT						
SR, NO.	PARAMETER	UNIT	METHOD OF TEST	(PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	RESULT		
1	Colour	Hazen	AFHA 22"ded. 2012,2120-B,2-6	See 6 of Annexure-I	<1		
2	Odour		APHA 22"0Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable		
3	Temperature	*C	APRA 22**5d.2012,2130-B,2-13	Shell not exceed 5°C above the receiving water temperature	24.8		
4	pH	-	АРНА 22 <sup>58</sup> Ed.2012,4500-H <sup>*</sup> -B, 4- 92	5.5 to 9.0	7.16		
5	Total Residual Chlorine	mg/L	APHA 22 <sup>50</sup> 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	48.0		
7	Dissolved Phosphate (as P)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,4500-P-C, 4- 153	5.0	N.D.		
8	Fluoride (as F)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,4500-F-B &D, 4-84 & 87	2.0	N.D.		
9	Lead (as Pb)	mg/L	APHA 22 <sup>M</sup> Ed.2012,3111-B, 3-18	0.1	N.D.		
10	Zinc (as En)	mg/L	APHA 22 <sup>sd</sup> Bd.2012,3111-B, 3-18	5.0	N.D.		
11	Copper (as Cu)	ng/L	APHA 22°d Ed.2012,3111-B, 3-18	3.0	N.D.		
12	Cadmium (as Cd)	ng/L	APHA 22 <sup>th</sup> Ed. 2012, 3500-Cd, 3-105	2.0	N.D.		
13	Mercury (as Hg)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3112-B, 3-23	0.01	N.D.		
14	Arsenic (as As)	mg/L	APHA 22 <sup>nd</sup> 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 Chronius (as Cr)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3500-Cr-B,3-69	2.0	N.D.		
17	Chemical Oxygen Desand (CCD)	mg/L	арна 22 <sup>nd</sup> Rd.2012, 5520-в, 5-17	250	74.0		
18	Biochemical Oxygen Demand (BOD)	mg/1	IS 3025 (Part 44):1993, RA 2003	30	6.4		
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,RA 2003,	10.0	N.D.		
20	Phenolic Compounds (as C.H.OH)	mg/L	IS 3025 (Part 43):1992,RA 2003	1.0	N.D.		

#### Terms & conditions

The impart line publication, orbitration or as legal dispote is fireboldess. Test sample will be retained for 15days after issue of test report ordess otherwise agreed with run.

This is for information as the party has agend for above south only

02/04/ REVIEWED BY

Phudt

For ULTIMATE ENVIROLYTICAL SOLUTIONS

02/04/22 AUTHORIZED SIGNATORY

-End of the test report-



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

	TO, HINDALCO INDUS GARE PALMA - IV VILLAGE - BANKI DISTT RAIGARE	STRIES LIMITED, 1/4, COAL MINE, HETA, POST MILUPARA,		REPORT NO  LAB REF NO  DATE OF SAMPLING  DATE OF RECEIPT  DATE OF REPORT  DATE OF ANALYSIS	UES/21 27/10/ 28/10/ 01/11/	2021	
	SAMPLE TYPE	WASTE WATER		GREER /REFERENCE:			
SAMPLE TYPE WASTE WATER GROER /REFERENCE: M/FO/SRV/2122/0045, DTD.:24-JULY-2021	COSTMER SAMPLE ID	ETP INLET & COTLET, BANKS	EZA.	SAMPLE CONDITION AT	RECEIPT	CMC	
SAND-LE TIPE MASSE WATER CHIEF / PREFERENCE: DTD.:24-JULY-2021	PACKING OF SAMPLE	3 L X I NO. PVC CAN 1 L X I NO. PVC CAN 1 L X I NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY		снентат	
COSTMER SAMPLE ID ETF INLET & COTLET, BANNHETA SAMPLE CONDITION AT NECETIFT ON  PACHING OF SAMPLE 1 1 X 1 NO. PVC CAN SEALED SAMPLE COLLECTED BY CHEMIST	SAMPLING PROCEDURE	IS:3025(PART I):1987 RA 2 22MD ED. 2012, I060-B, 1-		QUANTITY RECEIVED		5 22H	

#### Report No. 3507

			TEST REPORT			
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	BHANKETA ETP INLET	BANKHETA ETP OUTLET
1	Colour	Hazen	APHA 22 <sup>rd</sup> Ed. 2012,2120-B,2-6	See 6 of Annexure-I	4.2	<1
2	Odour	2	APRA 22°4Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable	Agreeable
3	Temperature	*C	арна 22 <sup>мв</sup> Ed.2012,2130-B,2-13	2,2130-B,2-13   Shell not exceed 5°C   above the receiving   25.0   water temperature		25.4
4	ря	- ti	APHA 22 <sup>st</sup> Ed.2012,4500-H'- B,4-92	8d.2012,4500-H <sup>4</sup> - 5.5 to 9.0 7.48		7.35
5	Total Residual Chlorine	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-C1- G,4-69	1.0	N.D.	N.D.
6	Total Suspended Solids	mg/L	APHA 22 <sup>84</sup> Ed.2012,2540- D, 2- 66	100	134.0	28.0
7	Dissolved Phosphate (as P)	mg/L	APHA 22 <sup>nd</sup> 5d.2012,4500-P-C,4- 153	5.0	0.4	0.1
8	Fluoride (as F)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,4500-F-B &D,4-84 & 87	2,0	0,18	0.06
9	Lead (as Pb)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	0.1	N.D.	N.D.
10	Zinc (as Zn)	mg/L	APHA 22°8 Ed.2012,3111-B, 3-	5.0	0.26	0.08
11	Copper (as Cu)	mg/L	APHA 22°8 Ed.2012,3111-B, 3- 18	3.0	N.D.	N.D.
12	Cadmium (as Cd)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3500-Cd, 3- 105	2.0	N.D.	N.D.
13	Meroury (as Hg)	mg/L	APHA 22 <sup>nt</sup> Ed.2012,3112-8, 3- 23	0.01	N.D.	N.D.
14	Arsenic (as As)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3- 38	0.2	N.D.	N.D.
15	Selenium (as Se)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.05	N.D.	N.D.
16	Total Chromium (as	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3500-Ce- B,3-69	2.0	N.D.	N.D.



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

Report No.3507

			TEST REPORT			
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1886 (SCHEDULE-VI) PART-A INLAND SURFACE WATER	BHANKETA ETP INLET	BANKHETA ETP OUTLET
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 <sup>M</sup> Ed.2012, 5520-B, 5- 17	250	94.0	24.0
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, NA 2003	30	16.6	2.2
19	Oil & Grease	mg/L	16 3025 (Part 39):1991,RA 2003	10	N.D.	N.D.
20	Phenolic Compounds (as C <sub>c</sub> H <sub>c</sub> OH)	ng/L	IS 3025 (Part 43):1992, RA 2003	1,0	N.D.	N.D.

-End of the test report-

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

Terms & conditions

The report for publication, orbitration or as logal dispute is furbidized.

Text acopie will be retained for 15 days after issue of text regge, and Old Teyron agreed with customer.

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY



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

TO, HINDALCO INDUS GARE PALMA - IV/ VILLAGE - BANKH DISTT, - RAIGARH	TRIES LIMITED, 4, COAL MINE, ETA, POST MILUPARA,		REPORT NO  LAB REF NO  DATE OF SAMPLING  DATE OF RECEIPT  DATE OF REPORT	UES/2R/21-22/04177 UES/21-22/W/07491 23/11/2021 24/11/2021 01/12/2021		
	DATE OF ANALYSIS START: 24/11/20				4/11/2021	END: 27/11/2021
		SAMP	LE DETAILS			
SAMPLE TYPE	MASTE WATER		ORDER /REFERENCE:		W/FO/SRY/II DED. 24-JUL	
CONSTMEN SAMPLE ID	ETP INLET & OUTLET, BANNE	ETA	SAMPLE CONDITION AT	RECEIPT	CBC	
PACKING OF SAMPLE	3 L X I NO. PVC CAN 1 L X I NO. PVC CAN 1 L X I NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY		СИВИЛЯТ	
SAMPLING PROCEDURE	IS:3025(PART I):1987 NA 2 22MD ED. 2012, 1060-B, 1-		QUARTITY RECEIVED		5 LTR	

Report No.04177

			TEST REPORT			
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) BULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	BHANKETA ETP INLET	BANKHETA ETP OUTLE
1	Colour	Hazen	APHA 22"Kd. 2012,2120-8,2-6	See 6 of Annexure-I	2.6	1.8
2	Odour	-	APHA 22 <sup>m8</sup> Ed. 2012,2120-8,2-6	See 6 of Annexure-1	Agreeable	Agreeable
3,	Temperature	Tature "C APHA 22"Ed,2012,2130-B,2-13 Shall not exceed 5"C above the receiving water temperature		25.5	24.8	
4	pit	-	APHA 22° Ed.2012,4500-H- B,4-92	5.5 to 9.0 7.53		7.28
5	Total Residual Chlorine	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-C1- G.4-69	1.0	N.D.	N.D.
6	Total Suspended Solids	mg/L	APHA 22 <sup>nd</sup> Ed.2012,2540- D, 2- 66	100	136.0	28.0
7	Dissolved Phosphate (as P)	mg/L	APMA 22 <sup>st</sup> Ed.2012,4500-F-C,4- 153	5.0	0,52	0.31
8	Fluoride (as F)	mg/L	APHA 22 <sup>64</sup> Ed.2012,4500-F-B 6D,4-84 6 87	2.0	0.5	0.3
9	Lead (as Pb)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	0.1	N.D.	N.D.
10	Zinc (as En)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3111-8, 3- 18	5.0	0.18	0.10
11	Copper (as Cu)	mg/L	APNA 22 <sup>nd</sup> Ed.2012,3111-8, 3- 18	3.0	N.D.	N.D.
12	Cadmium (as Cd)	mg/L	APHA 22 <sup>th</sup> Ed.2012,3500-Cd, 3- 105	2.0	N.D.	N.D.
13	Hercury (as Hg)	mg/L	APNA 22 <sup>td</sup> Ed.2012,3112-B, 3- 23	0.01	N.D.	N.D.
14	Arsenic (as As)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.2	N.D.	N.D.
15	Selenium (as Se)	mg/L	APHA 22" Ed.2012,3114-C, 3- 38	0.05	N.D.	H.D.
16	Total Chromium (as	mg/L	APHA 22 <sup>th</sup> Ed.2012,3500-Cr- B,3-69	2.0	N.D.	N.D.



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

Report No.04177

			TEST REPORT			
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 (SCHEDULE-VI) PART-A INLAND SURFACE WATER	BHANKETA ETP INLET	BANKHETA ETP OUTLET
17	Chemical Oxygen Demand (CCD)	mg/L	АРНА 22 <sup>46</sup> Ed.2012, 5520-В, 5- 17	250	60.0	24.0
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	8.2	2.2
19	Oil & Grease	mg/L	1S 3025 (Part 39):1991,RA 2003	. 10	M.D.	N.D.
20	Phenolic Compounds (as C <sub>4</sub> H <sub>1</sub> OH)	mg/L	IS 3025 (Part 43):1992, RA 2003	1.0	N.D.	N.D.

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

Territor & conditions

The impact for publication, erhibition or as legal dispute is furbition.

Text sample will be retained for History when reason of test report orders otherwise agreed with customer

211121

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

01/12/21



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

TO, HINDALCO INDUS			REPORT NO LAB REF NO	-	UES/TR/21-22/05009 UES/21-22/W/09013		
GARE PALMA - IV			DATE OF SAMPLING	22/12/2	021		
	ETA, POST MILUPARA,		DATE OF RECEIPT	23/12/2	12021		
DISTT RAIGARH	Charles and the state of the st		DATE OF REPORT	01/01/2	022		
	DATE OF ANALYSIS START: 24/1		4/12/2021	END: 28/12/2021			
		SAMP	LE DETAILS				
SAMPLE TYPE	KASTE WATER		CHOER /HEFERENCE:		W/BO/GRV/21 PED: 24-JUL		
CUSTMER SAMPLE ID	ETF INLET & OUTLET, BANKH	KTA	SAMPLE COMPLITION AT	RECEIPT	OK Se one		
PACKING OF SAMPLE	J L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY		CHRMIST		
SAMPLING PROCEDURE	18:3025(FART I):1987 RA 2: 22ND ED. 2012, 1060-B, 1-		QUANTITY RECEIVED		5 LTR		

Report No.05009

			TEST REPORT			
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 (SCHEDULE-VI) PART-A INLAND SURFACE WATER	BHANKETA ETP INLET	BANKHETA ETP OUTLET
1	Colour	Hazen	APHA 22 <sup>rd</sup> Ed. 2912,2120-8,2-6	Sam 6 of Annexure-I	2.4	1.6
2	Odour	-	APHA 22 <sup>rd</sup> Ed. 2012,2120-B,2-6	See 6 of Annequire-I	Agreeable	Agreeable
3	Temperature	=C	APHA 22 <sup>nd</sup> Ed.2012,2130-B,2-13	HA 22 <sup>MC</sup> Ed.2812,2130-B,2-13 Shell not exceed 5°C above the receiving water temperature 25.2		24.9
4	pft	200	АРНА 22° Ed.2012,4500-H°- В,4-92	5.5 to 9.0	9.0 7.57	
5	Total Residual Chlorine	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-C1- G,4-69	1.0	N.D.	N.D.
6	Total Suspended Solids	mg/L	APHA 22 <sup>nt</sup> Ed.2012,2540- D, 2- 66	100	142.0	32.0
7	Dissolved Phosphate (as P)	mg/L	APRA 22 <sup>rd</sup> Ed.2012,4500-P-C,4- 153	5.0	0.58	0.34
8	Fluoride (as F)	mg/L	AFHA 22 <sup>nd</sup> 8d.2012,4500-F-B 4D,4-84 & 87	2.0	0.4	0.2
9	Lead (as Pb)	mg/L	APRA 22** Ed.2012,3111-B, 3- 18	0.1	N.D.	N.D.
10	Eino (as En)	mg/L	АРНА 22 <sup>94</sup> Ed.2012,3111-B, 3- 18	5.0	0,20	0.13
11	Copper (as Cu)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	3.0	N.D.	N.D.
12	Cadmium (as Cd)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3500-cd, 3- 105	2.0	N.D.	N.D.
13	Heroury (as Hg)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3112-B, 3- 23	0.01	N.D.	N.D.
14	Arsenic (ss As)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3- 38	0.2	N.D.	N.D.
15	Selenium (as Se)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3114-C, 3-38	0.05	N.D.	N.D.
16	Total Chromium (as	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3500-Cr- B,3-69	2.0	N.D.	N.D.



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

Report No.05009

			TEST REPORT			
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	BHANKETA ETP INLET	BANKHETA ETP OUTLET
17	Chemical Oxygen Demand (COD)	mg/L	АРНА 22 <sup>ml</sup> Ed.2012, 5520-B, 5- 17	250	64.0	28.0
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	8.1	2.1
19	Oil & Grease	mg/L	15 3025 (Part 39):1991,RA 2003	10	N.D.	N.D.
20	Phenolic Compounds (as C(H)OH)	mg/L	IS 3025 (Part 43):1992, RA 2003	1.0	N.D.	N.D.

REMARKS: mg/lit.: millioram per Ster, N.D.: Not Detected

Terms & conditions

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

Foot comple will be retained for 15 days after issue of less report unlass althoraise agreed with cau

Phino1/22

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY



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

Name & Address Of The Custome REPORT NO UES/TR/21-22/06002 TO, LAB REF NO UES/21-22/W/010320-10321 HINDALCO INDUSTRIES LIMITED, DATE OF SAMPLING 24/01/2022 GARE PALMA - IV/4, COAL MINE, DATE OF RECEIPT 25/01/2022 VILLAGE - BANKHETA, POST MILUPARA, DATE OF REPORT 02/02/2022 DISTT. - RAIGARH (C.G.) 496107 DATE OF ANALYSIS START: 25/01/2022 END: 29/01/2022 SAMPLE DETAILS N/PO/SRY/2122/0045, DID. 24~JUSY-2021 OR SAMPLE TYPE WASTE WATER ORDER /REFERENCE: ### THIET & COTLET, BANKHETA
3 L X 1 NO. PYC CAN
1 L X 1 NO. PYC CAN
1 L X 1 NO. GLASS BOTTLE
15:3025(PART I):1987 RA 2003; AFRA
22ND ED. 2012, 1060-B, 1-39 SAMPLE CONDITION AT RECEIPT CUSTMER SAMPLE ID PACKING OF SAMPLE SAMPLE COLLECTED BY CHINGST SAMPLING PROCEDURE QUANTITY RECEIVED 5 128

#### Report No. 6002

			TEST REPORT			
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1884 (SCHEDULE-VI) PART-A INLAND SURPACE WATER	BHANKETA ETP INLET	BANKHETA ETP OUTLET
1	Colour	Hazen	АРНА 22 <sup>nd</sup> Ed. 2012,2120-B,2-6	See 6 of Annexure-I	2.6	1.8
2	Odour	1 3	APHA 22 <sup>ME</sup> Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable	Agreeable
3	Temperature	°c	АРНА 22 <sup>m0</sup> Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.4	24.6
4	pH	80	АРНА 22 <sup>nd</sup> Bd.2012,4500-H*- B,4-92	5.5 to 9.0	7.62	7.49
5	Total Residual Chlorine	mg/L	АРНА 22 <sup>nd</sup> Ed.2012,4500-Cl- G,4-69	1.0	N.D.	N.D.
6	Total Suspended Solids	mg/L	APHA 22 <sup>rd</sup> Ed.2012,2540- D, 2- 66	100	148.0	36.0
7	Dissolved Phosphats (as P)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-P-C,4- 153	5.0	0.62	0.30
8	Fluoride (as F)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,4500-F-B 4D,4-84 & 87	2.0	0.5	0.4
9	Lead (as Pb)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	0,1	N.D.	N.D.
10	Zinc (as En)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	5.0	0.22	0.16
11	Copper (as Cu)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 16	3.0	N.D.	N.D.
12	Cadmium (es Cd)	mg/L	АРНА 22° Ed.2012,3500-Cd, 3- 105	2.0	N.D.	N.D.
13	Mercury (as Hg)	mg/L	АРНА 22°4 Ed.2012,3112-В, 3- 23	0.01	N.D.	N.D.
14	Arsenic (as As)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3114-C, 3- 38	0,2	N.D.	N.D.
15	Selenium (as Se)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3- 38	0.05	N.D.	N.D.
16	Total Chromium (as	ng/L	APHA 22° Ed.2012,3500-Cr- B,3-69	2.0	N.D.	N.D.



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

Report No. 6002

	TEST REPORT									
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1886 (SCHEDULE-VI) PART-A INLAND SURFACE WATER	BHANKETA ETP INLET	BANKHETA ETP OUTLET				
17	Chemical Oxygen Demand (CCD)	mg/L	АРНА 22 <sup>nd</sup> Ed.2012, 5520-В, 5- 17	250	64.0	24.0				
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	8.4	2.2				
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,RA 2003	10	N.D.	N.D.				
20	Phenolic Compounds (as C <sub>4</sub> H <sub>3</sub> OH)	mg/L	IS 3025 (Part 43):1992, RA 2003	1.0	N.D.	N.D.				

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

Terms & conditions

The report for publication, arbitration or as logal dispute is forbitiden

Test sample will be retained for 15 days after lesse of test report unless otherwise agreed with custoste

REVIEWED BY

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 Ca	REPORT NO				/21-22/0792			
HINDALCO INDUS GARE PALMA - IV			DATE OF SAMPLING		UES/21-22/W/013111			
	ETA, POST MILUPARA,		DATE OF SAMPLING 24/02/2022  DATE OF RECEIPT 25/02/2022					
DISTT RAIGARH (C.G.) 496107			DATE OF REPORT 01/03/2					
		DATE OF ANALYSIS	START: 25/02/2022 END: 01/03/2022			3/2022		
		SAMP	LE DETAILS					
SAMPLE TYPE	WASTE WATER		ORDER /REFERENCE:		M/PO/SRV/211	22/0045,	PRD. 24	
CUSIMER SAMPLE ID	ETF INLET & OUTLET, RANKHE	TA	SAMPLE CONDITION AT	BECKIPT	OK 2021			
PACKING OF SAMPLE 3 L X 1 MO, PVC CAN 1 L X 1 MO, PVC CAN 1 L X 1 MO, GLASS BOTTLE		GAMPLE COLLECTED BY		CHENTST				
SAMPLING PROCEDURE 18:3025(PART 1):1987 RA 2003; APMA 22ND ED. 2012, 1060-B, 1-39				5 LOR				

Report No. 7927

			TEST REPORT		over POT make	Tall Indian
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1996 (SCHEDULE-VI) PART-A INLAND SURFACE WATER	BHANKETA ETP INLET	BANKHETA ETP OUTLET
1	Colour	Hazen	APHA 22 <sup>nd</sup> Ed. 2012,2120-B,2-6	See 6 of Annexure-I	3.8	<1.0
2	Odour .	-	APHA 22 <sup>od</sup> Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable	Agreeable
3	Temperature	°C	APHA 22 <sup>nd</sup> Rd.2012,2130-8,2-13	Shall not exceed 5°C above the receiving water temperature	25.2	24.8
4	pit	-	APHA 22° B3,2012,4500-H'- B,4-92	5.5 to 9.0	7.58	7.34
5	Total Residual Chlorine	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-C1- G,4-69	1.0	N.D.	N.D.
6	Total Suspended Solids	mg/L	APHA 22 <sup>nd</sup> Ed.2012,2540- D, 2- 66	100	162.0	28.0
7	Dissolved Phosphate (as P)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-P-C,4- 153	5.0	0.58	0.24
8	Fluorida (as F)	mg/L	APHA 22 <sup>88</sup> Ed.2012,4500-F-B &D,4-84 % 87	2,0	0.6	0.3
9	Lead (as Fb)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	0.1	N.D.	N.D.
10	Zinc (as Zn)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	5.0	0.21	0.11
11	Copper (as Cu)	mg/L	APRA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	3.0	N.D.	N.D.
12	Cadmium (as Cd)	mg/L	APHA 22 <sup>84</sup> Ed.2012,3500-Cd, 3- 105	2.0	N.D.	N.D.
13	Mercury (as Eg)	mg/L	APHA 22 <sup>td</sup> Ed.2012,3112-B, 3- 23	0.01	N.D.	N.D.
4	Arsenic (as As)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3- 38	0.2	N.D.	N.D.
5	Selenium (as Se)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,3114-C, 3-	0.05	N.D.	N.D.
.6	Total Chromium (as Cr)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3500-Cr- B,3-69	2.0	N.D.	N.D.

For ULTIMATE ENVIROLYTICAL SQLUTIONS

AUTHORIZED SIGNATORY



HDD-272, Phase III - Near JP Chowk Ring Road No -2, Kabir Nagar, Raipur (C.G.) - 492099 Ph : 0771 - 40277777 I Email : ultimatenviro@gmail.com

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

#### Report No. 7927

	TEST REPORT									
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1886 (SCHEDULE-VI) PART-A INLAND SURFACE WATER	BHANKETA ETP INLET	BANKHETA ETP OUTLET				
1.7	Chemical Oxygen Demand (COD)	mg/L	APHA 22 <sup>rd</sup> Ed.2012, 5520-B, 5- 17	250	74.0	34.0				
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	9.4	3.8				
19	Oil & Grease .	mg/L	IS 3025 (Part 39):1991,RA 2003	10	N.D.	M.D.				
20	Phenolic Compounds (as C <sub>s</sub> H <sub>3</sub> OH)	mg/L	£S 3025 (Part 43):1992, RA 2003	1.0	N.D.	N.Ď.				

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

Terms & conditions

The report for publication, arbitration or no legal dispute in forbidden.

Test semple will be redsired for 15days after Issue of test report unless otherwise agreed with custom

REVIEWED BY End of the test report-



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

TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST MILUPARA, DISTT RAIGARH (C.G.) 496107			REPORT NO  LAB REF NO  DATE OF SAMPLING  DATE OF RECEIPT  DATE OF REPORT  DATE OF ANALYSIS	LAB REF NO UES/21-22/W/014627  DATE OF SAMPLING 28/03/2022  DATE OF RECEIPT 29/03/2022  DATE OF REFORT 02/04/2022  DATE OF ANALYSIS START:29/03/2022 END:03			/04/2022	
		SAMP	LE DETAILS			11-	TO A STATE	
SAMPLE TYPE	WASTE WATER		ORDER /REFERENCE:		8/00/4RV/2122/0545, DED. 24		D(D), 24-	
CUSTOMER HAMPLE ID	MIT INLET & OUTLET, BANKS	EZA	SAMPLE CONDITION AT	RECEIPT	OK OK			
PACKING OF SAMPLE 3 L X 1 MO, PVC CAN SEALED 1 L X 1 MO, GLASS BOTTLE		SAMPLE COLLECTED BY		CHEMISE				
SAMPLING PROCEDURE 15:3025(PART I):1967 RA 2003/ APHA 2200 ED. 2012, 1060-8, 1-39			QUARTITY RECRIVED		5 LTR			

#### Report No. 08934

			TEST REPORT			
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1996 (SCHEDULE-VI) PART-A INLAND SURFACE WATER	BHANKETA ETP INLET	BANKHETA ETP OUTLET
1	Colour	Hazen	APHA 22 <sup>rd</sup> Ed. 2012,2120-B,2-6	See 6 of Annexure-1	4.5	<1.0
2	Odour	.5.	APHA 22**Bd. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable	Agresable
3	Temperature	°C	АРНА 22 <sup>46</sup> Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.8	25.2
4	PH		APHA 22 <sup>nd</sup> Ed.2012,4500-H*- B,4-92	5.5 to 9.0	7.64	7.18
5	Total Residual Chlorine	mg/L	APHA 22 <sup>rd</sup> Ed.2012,4500-C1- G,4-69	1.0	N.D.	N.D.
6	Total Suspended Solids	mg/L	APHA 22 <sup>rd</sup> Ed.2012,2540- D, 2- 66	100	182.0	22.0
7	Dissolved Phosphate (as P)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-P-C,4- 153	5.0	0.62	0.32
8	Pluoride (as F)	mg/L	APHA 22 <sup>rd</sup> Ed.2012,4500-F-B 6D,4-84 6 87	2.0	0.8	0.4
9	Lead (as Pb)	mg/L	АРНА 22 <sup>nd</sup> Ed.2012,3111-B, 3- 10	0.1	N.D.	N.D.
10	Zinc (as En)	ng/L	АРНА 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	5.0	0.41	0.08
11	Copper (as Cu)	mg/L	АРНА 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	3.0	N.D.	N.D.
12	Cadmium (as Cd)	mg/L	АРНА 22 <sup>nd</sup> Ed.2012,3500-cd, 3- 105	2.0	N.D.	N.D.
13	Mercury (as Hg)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3112-B, 3- 23	0.01	N.D.	N.D.
14	Arsenic (as As)	mg/L	APHA 22 <sup>88</sup> Ed.2012,3114-C, 3- 38	0.2	N.D.	N.D.
15	Selenium (as Se)	mg/L	АРИА 22 <sup>84</sup> Ed.2012,3114-C, 3- 38	0.05	N.D.	N.D.
16	Total Chromium (as Cr)	mg/L	APHA 22 <sup>st</sup> Ed.2012,3500-Cr- B,3-69	2.0	N.D.	N.D.

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 I Email: ultimatenviro@gmail.com

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

#### Report No. 08934

TEST REPORT									
5R. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1996 (SCHEDULE-VI) PART-A INLAND SURFACE WATER	BHANKETA ETP INLET	BANKHETA ETP OUTLET			
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 <sup>nd</sup> Ed.2012, 5520-B, 5- 17	250	86.0	24.0			
18	Biochemical Oxygen Demand (BCD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	12.8	4.6			
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,RA 2003	10	N.D.	N.D.			
20	Phenolic Compounds (as C <sub>c</sub> H <sub>2</sub> OH)	mg/L	IS 3025 (Part 43):1992, RA 2003	1.0	N.D.	N.D.			

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

REVIEWED BY

Terms & conditions

The report for publication, arbitration or as legal dispute at furbidists.

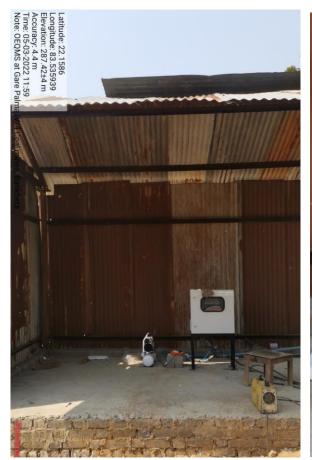
 Test sample will be retained for 15 days after issue of feat report values otherwise agreed with costs.

 This is for information as the purity has asked for above testifs only.

-End of the test report-

# Annexure-5A

## CONTINOUS ONLINE EFFLUENT QUALITY MONITORING SYSTEM (COEQMS - 01 Nos.) AT GARE PALMA IV/4 COAL MINE, BANKHETA, RAIGARH







# Annexure-6

## Ground Water Level Monitoring Report in and around the Coal Mine Area (From Oct 2021 to Dec 2021)

Sr. No.	Location	Types of Structure		In Meters	
			Ground Water level (BGL) Oct 2021	Ground Water level (BGL) Nov 2021	Ground Water level (BGL) Dec 2021
1	Bankheta (Near HIL Office)	Borewell/ AWLR	7.10	9.82	10.65
2	Banjikhol (Near Office)	Borewell/ AWLR	24.33	24.29	24.35
3	Milupara (Near Office)	Borewell/ AWLR	9.12	9.70	10.42
4	HIL Staff Quarter	Borewell/ AWLR	4.40	4.72	5.65
5	Milupara Village (PHC-HIL)	Dugwell	1.66	2.70	2.74
6	Sakta Village (Near Primary School)	Dugwell	2.30	2.70	2.97
7	Sidarpara Village (Near Primary School)	Dugwell	7.13	7.90	8.50
8	Beljor Village	Dugwell	5.16	5.80	5.70



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

Name & Address Of TO,			REPORT NO  LAB REF NO	UES/TR/21-22/04189 UES/21-22/W/07511			
	D INDUSTRIES LIMITED,  _MA – IV/4, COAL MINE,			23/11/2021			
VILLAGE - BANKHET			DATE OF RECEIPT	24/11/2021			
POST -MILUPARA,	,		DATE OF REPORT		01/12/2021		
DISTT RAIGARH (C.	DATE OF ANALYSIS	ST	CART: 24/11/2021	END: 27/11/2021			
		S	AMPLE DETAILS				
SAMPLE TYPE	GROUNDWATER		ORDER /REFERENCE:	N/PO/SRV/2122/0045, DTD. 24-J		0045, DTD. 24-JULY-2021	
CUSTMER SAMPLE ID	BANKHETA MINE (PIEZOMETER) AWLR		SAMPLE CONDITION AT RECEIPT	OK 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	Y CHEMIST				
IS:3025(PART I):1987 RA 2003; APHA 22ND ED. 2012, 1060-B, 1-39			QUANTITY RECEIVED		5 LTR		

			TEST REPORT			
SR.	FELTING TO SET			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	рН	-	APHA 22 <sup>nd</sup> Ed.2012,4500-H <sup>+</sup> -B, 4-92	6.5-8.5	NoRelaxatio n	7.93
5	Turbidity	NTU	APHA 22 <sup>nd</sup> Ed.2012,2130-B,2-13	1	5	1.12
6	Electrical Conductivity	μS/cm	IS 3025(part-14):1984, RA 2013	-	-	162.0
7	Residual Chlorine	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-Cl-G, 4 - 69	0.2	1	N.D.
8	Total Solid	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2540- B, 2- 64	-	-	100.2
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	98.2
10	Total Suspended Solids	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2540- D, 2- 66	-	-	2.0
11	Alkalinity Total (as CaCO <sub>3</sub> )	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	34.0
12	Total Hardness ( as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2340-C, 2-44,45	200	600	48.0
13	Calcium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ca-B, 3-67	-		26.0
14	Magnesium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84	-	-	22.0
15	Calcium (as Ca)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500–Ca-B, 3-67	75	200	10.4
16	Magnesium (as Mg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84	30	100	5.34
17	Chloride (as CI)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-CI-B, 4-72	250	1000	15.9
18	Sulphate (as SO <sub>4</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-SO <sub>4</sub> -E, 4-190	200	400	11.4
19	Nitrate (as NO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-NO <sub>3</sub> -B, 4-122	45	NoRelaxatio n	0.21
20	Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P-C, 4-153	-	-	N.D.



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

Report	No.	041	89
--------	-----	-----	----

			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		-	16.4
22	Potassium (as K)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-K-B, 3-87	-	-	1.18
23	Boron (as B)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-B-B, 4- 25	0.5		
24	Iron (as Fe)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B,3-18	0.3	NoRelaxatio n	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.10
26	Manganese (as Mn)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	0.1	0.3	N.D.
27	Lead (as Pb)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	0.01	NoRelaxatio n	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Cd, 3- 105	0.003	NoRelaxatio n	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3112-B, 3-23	0.001	NoRelaxatio n	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.01	0.01 NoRelaxatio n	
35	Chromium (as Cr)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxatio n	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,5540-C, 5-53	0.2	1.0	N.D.
37	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 <sup>nd</sup> 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	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	Absent
esti	cides		L.		L. T.	
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.



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

Report No.04189

	TEST REPORT									
SR.		i in a		AS PER IS	10500:2012	RESULT				
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit					
7	Alpha-HCH	μg/L	US EPA 508-1995	0.	0.01					
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	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	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		-					
24	Malathion	μg/L	US EPA 8141A-1994	19	190					
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.

#### REMARKS: RESULTS ARE AS ABOVE

REVIEWED BY

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.

**AUTHORIZED SIGNATORY** 

For ULTIMATE ENVIROLYTICAL SOLUTIONS

-End of the test report-



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

Name & Address Of The Cus	stomer	REP	PORT NO	UES/TR/21-22/04190			
TO,	STRIES LIMITED,	LAB	REF NO	UES	/21-22/W/07	512	
GARE PALMA - IN	PRINCIPLE AND PARTY AND PRINCIPLE AND PRINCI	DAT	TE OF SAMPLING	23/	11/2021		
VILLAGE - BANK	the state of the s	DAT	E OF RECEIPT	24/	11/2021		
POST -MILUPARA	۸,	DAT	TE OF REPORT	01/:	12/2021		
DISTT RAIGAR	H (C.G.) 496107.	DAT	DATE OF ANALYSIS		T:24/11/2021	END: 27/11/2021	
		SAME	PLE DETAILS				
SAMPLE TYPE	GROUND WATER		ORDER /REFERENCE	Œ:	N/PO/SRV/21 2021	22/0045, DTD. 24-JULY-	
CUSTMER SAMPLE ID	BANJIKHOL MINE (PIEZOMET	ER) AWLR	SAMPLE CONDITION RECEIPT	ON AT	AT 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 COLLECTI	ED BY	CHEMIST		
SAMPLING PROCEDURE	IS:3025(PART I):1987 RA APHA 22ND ED. 2012, 106		QUANTITY RECEIV	/ED	5 LTR		

Report No.04190

			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	5 15	
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeabl
3	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeabl
4	pH	-	APHA 22 <sup>nd</sup> Ed.2012,4500-H <sup>+</sup> -B, 4-92	6.5-8.5	NoRelaxation	6.84
5	Turbidity	NTU	APHA 22 <sup>nd</sup> Ed.2012,2130-B,2-13	1	5	2.3
6	Electrical Conductivity	μS/cm	IS 3025(part-14):1984, RA 2013	-	-	169.4
7	Residual Chlorine	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-Cl-G, 4 - 69	0.2	1	N.D.
8	Total Solid	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2540- B, 2- 64	N= 1	-	104.2
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	102.4
10	Total Suspended Solids	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2540- D, 2- 66	-	-	1.8
11	Alkalinity Total (as CaCO <sub>3</sub> )	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	44.0
12	Total Hardness ( as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2340-C, 2-44,45	200	600	78.0
13	Calcium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500–Ca-B, 3-67	-	-	38.0
14	Magnesium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84	-	-	40.0
15	Calcium (as Ca)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500–Ca-B, 3-67	75	200	15.2
16	Magnesium (as Mg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84	30	100	9.72
17	Chloride (as CI)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-CI-B, 4-72	250	1000	14.9
18	Sulphate (as SO <sub>4</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-SO <sub>4</sub> -E, 4-190	200	400	11.3
19	Nitrate (as NO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-NO <sub>3</sub> - B,4-122	45 NoRelaxation		2.1
20	Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P-C, 4-153	-	-	N.D.



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

			TEST REPORT			
SR.				AS PER IS	10500:2012	in the sale
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	-	-	8.2
22	Potassium (as K)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500–K-B, 3-87	-	-	0.21
23	Boron (as B)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-B-B, 4-25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B,3-18	0.3	NoRelaxation	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	N.D.
26	Manganese (as Mn)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	0.1	0.3	N.D.
27	Lead (as Pb)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	0.01	NoRelaxation	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Cd, 3- 105	0.003	NoRelaxation	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3112-B, 3-23	0.001	NoRelaxation	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.01	0.01 NoRelaxation	
35	Chromium (as Cr)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Cr-B, 3-69	0.05 NoRelaxation		N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,5540-C, 5-53	0.2	.2 1.0	
37	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 <sup>nd</sup> 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.
1icro	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	cides					
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.



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

Report No.04190

			TEST REPORT			
SR.				AS PER IS	10500:2012	
NO.	PARAMETER	PARAMETER UNIT M	METHOD OF TEST	Acceptable Limit		RESULT
8	Beta-HCH	μg/L	US EPA 508-1995	0.	0.04	
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	
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	19	190	
25	Malaoxon	μg/L	US EPA 8141A-1994		-	
26	Aldrin	μg/L	US EPA 508- 1995	0.0	0.03	
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

REVIEWED BY

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---



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

Name & Address Of The Cu.	viomer	REPO	RT NO	UES/TR/21-	22/0	4225
TO,	LAB REF NO UES/2		UES/21-22/	22/W/07585		
	DATE OF SAMP  RE PALMA – IV/5, MILUPARA  DATE OF RECE			24/11/2021		
STREET, STREET				25/11/2021		
U/G COAL MINE,VILL	AGE – MILUPARA,	DATE	OF REPORT	01/12/2021	01/12/2021	
BLOCK-TAMNAR, DISTT RAIGARH (C	G ) 496107	DATE	OF ANALYSIS	START: 25/11/.	2021	END:29/11/2021
		SAMPL	E DETAILS			
SAMPLE TYPE	GROUND WATER		ORDER /REFERENCE:		M/PO/SRV/2122/0049, DTD. 24-JULY-2021	
CUSTMER SAMPLE ID	NEAR MILUPARA MINES O PIEZOMETER -AWLR	OFFICE	SAMPLE COND: RECEIPT	ITION AT	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 COLLI	ECTED BY	СНІ	EMIST
SAMPLING PROCEDURE	IS:3025(PART I):1987 APHA 22ND ED. 2012,		QUANTITY REC	CEIVED	5 1	LTR

REPORT NO. - 04225

			TEST REPORT			
SR.				AS PER IS	10500:2012	
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Control of the Contro	
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 <sup>nd</sup> Ed.2012,4500-H <sup>+</sup> -B, 4-92	6.5-8.5	NoRelaxation	6.54
5	Turbidity	NTU	APHA 22 <sup>nd</sup> Ed.2012,2130-B,2-13	1	5	2.0
6	Electrical Conductivity	μS/cm	IS 3025(part-14):1984, RA 2013	-	-	188.6
7	Residual Chlorine	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-Cl-G,4 - 69	0.2	1	N.D.
8	Total Solid	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2540- B, 2- 64	-	-	120.2
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	114.6
10	Total Suspended Solids	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2540- D, 2- 66	-	7	5.6
11	Alkalinity Total (as CaCO <sub>3</sub> )	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	26.0
12	Total Hardness ( as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2340-C, 2-44,45	200	600	58.0
13	Calcium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500–Ca-B, 3-67	-	-	32.0
14	Magnesium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84	-	-	26.0
15	Calcium (as Ca)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500–Ca-B, 3-67	75	200	12.8
16	Magnesium (as Mg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84	30	100	6.3
17	Chloride (as Cl)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-CI-B, 4-72	250	1000	15.9
18	Sulphate (as SO <sub>4</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-SO <sub>4</sub> - E,4-190	200	200 400	
19	Nitrate (as NO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500–NO <sub>3</sub> -B, 4-122	45	NoRelaxation	2.2



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

Permissible limit  1.0 NoRelaxation 1.5 0.3 NoRelaxation No Relaxation	N.D. 7.2 0.39 N.D. N.D. 0.09 N.D.
limit  1.0 NoRelaxation 1.5 0.3 NoRelaxation No	N.D. 7.2 0.39 N.D. N.D. 0.09
1.5 0.3 NoRelaxation	7.2 0.39 N.D. N.D. 0.09
1.5 0.3 NoRelaxation	0.39 N.D. N.D. 0.09 N.D.
1.5 0.3 NoRelaxation	N.D. N.D. 0.09 N.D.
1.5 0.3 NoRelaxation	N.D. 0.09 N.D.
1.5 0.3 NoRelaxation	0.09 N.D.
0.3 NoRelaxation	N.D.
NoRelaxation	
No	N.D.
	N.D.
15	N.D.
1.5	N.D.
NoRelaxation	N.D.
0.001 NoRelaxation	
0.05	N.D.
APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38 0.01 NoRelaxation	
APHA 22 <sup>nd</sup> Ed.2012,3500-Cr-B, 0.05 NoRelaxation	
1.0	N.D.
0.002	N.D.
JoRelaxation	N.D.
No Relaxation	N.D.
-	N.D.
ectable in any ample	Absent
ectable in any ample	Absent
ectable in any	Absent
	N.D.
	N.D.
	N.D.
	N.D.
1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Relaxation 15 1.5 ORelaxation 0.05 ORelaxation 0.05 ORelaxation 0.002 ORelaxation 1.0  0.002 ORelaxation  Ctable in any imple ctable in any imple ctable in any imple ctable in any



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

PEROPT NO - 04225

			TEST REPOR	T		
				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		1	N.D.
6	Gamma-HCH (Lindane)	μg/L	US EPA 508-1995		2	
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	Endosulfansulphat e	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		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		.90	N.D.
25	Malaoxon	μg/L	US EPA 8141A-1994		-	
26	Aldrin	μg/L	US EPA 508- 1995	0	.03	N.D.
27	Dieldrin	μg/L	US EPA 508-1995	0	0.03	

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

### REMARKS: RESULTS ARE AS ABOVE

REVIEWED BY

ithis & 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

End of the test report-

For ULTIMATE ENVIROLYTICAL SOLUTIONS

**AUTHORIZED SIGNATORY** 

01/12/21



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

Name & Address Of The Cu TO, HINDALCO INDUSTR GARE PALMA – IV/5, U/G COAL MINE,VILL BLOCK-TAMNAR,	DATE	LAB REF NO         UES/2           DATE OF SAMPLING         24/11           DATE OF RECEIPT         25/11           DATE OF REPORT         01/12		UES/TR/21-22/04224 UES/21-22/W/07584 24/11/2021 25/11/2021 01/12/2021		
DISTT RAIGARH (C	.G.) 496107		OF ANALYSIS	START: 25/11/	2021	END: 29/11/2021
SAMPLE TYPE	GROUND WATER		ORDER /REFERENCE:		M/PO/SRV/2122/0049, DTD. 24-JULY-2021	
CUSTMER SAMPLE ID	STAFF QUARTER-BANJIKHOL PIEZOMETER (AWLR)		SAMPLE CONDIT	ION AT RECEIPT	OK	. 27 JUH 2021
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	CHE	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. 04224

	TEST REPORT									
SR.	PARAMETER	UNIT		ACCEPTABL DRINKING WATE	E LIMIT FOR R (IS 10500:2012)					
NO.			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 <sup>nd</sup> Ed.2012,4500-H <sup>+</sup> -B, 4-92	6.5-8.5	NoRelaxati on	6.85				
5	Turbidity	NTU	APHA 22 <sup>nd</sup> Ed.2012,2130-B,2-13	1	5	1.20				
6	Electrical Conductivity	μS/cm	IS 3025(part-14):1984, RA 2013	-	-	226.0				
7	Residual Chlorine	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-Cl-G, 4 - 69	0.2	1	N.D.				
8	Total Solid	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2540- B, 2- 64	-	-	146.6				
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	134.8				
10	Total Suspended Solids	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2540- D, 2- 66	-	-	11.8				
11	Alkalinity Total (as CaCO <sub>3</sub> )	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	38.0				
12	Total Hardness ( as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2340-C, 2-44,45	200	600	82.0				
13	Calcium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500–Ca-B, 3-67	-	-	44.0				
14	Magnesium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84	-	-	38.0				
15	Calcium (as Ca)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500–Ca-B, 3-67	75	200	17.6				
16	Magnesium (as Mg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84	30	100	9.23				
17	Chloride (as CI)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-CI-B, 4-72	250	1000	34.9				
18	Sulphate (as SO <sub>4</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-SO <sub>4</sub> - E,4-190	200	400	23.8				
19	Nitrate (as NO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-NO <sub>3</sub> - 45 NoRela		NoRelaxati on	0.74				
20	Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P-C, 4-153	-	-	N.D.				



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

TEST REPORT								
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	And the second s	E LIMIT FOR R (IS 10500:2012) Permissible limit	RESULT		
21	Sodium (as Na)	mg/Lit	APHA 22ndEd.2012,3500-Na-B, 3-97	-	-	6.1		
22	Potassium (as K)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500–K-B, 3-87	-	-	2.1		
23	Boron (as B)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-B-B, 4- 25	0.5	1.0	N.D.		
24	Iron (as Fe)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B,3-18	0.3	NoRelaxati on	N.D.		
25	Fluoride (as F)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.17		
26	Manganese (as Mn)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	0.1	0.3	N.D.		
27	Lead (as Pb)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	0.01	NoRelaxati on	N.D.		
28	Nickel (as Ni)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.		
29	Zinc (as Zn)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	5	15	N.D.		
30	Copper (as Cu)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	0.05	1.5	N.D.		
31	Cadmium (as Cd)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Cd, 3- 105	0.003	NoRelaxati on	N.D.		
32	Mercury (as Hg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3112-B, 3-23	0.001	NoRelaxati on	N.D.		
33	Arsenic (as As)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.01	0.05	N.D.		
34	Selenium (as Se)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.01	NoRelaxati on	. N.D.		
35	Chromium (as Cr)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxati on	N.D.		
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,5540-C, 5-53	0.2	1.0	N.D.		
37	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.		
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 <sup>nd</sup> 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	Shall not be detectable in any 100 ml sample		Absent		
2	Faecal coliform	MPN/ 100ml	IS:1622:1981: RA:2019	Shall not be detectable in any 100 ml sample		Absent		
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019	Shall not be detectable in any 100ml sample		Absent		
Pestic	ides							
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.		



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

REPORT NO 04224

TEST REPORT										
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	ACCEPTABLE LIMIT FOR DRINKING WATER (IS 10500:2012) Acceptable Permissible		RESULT				
				Limit	limit					
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	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.				

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

#### REMARKS: RESULTS ARE AS ABOVE

REVIEWED BY

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.

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	Gustomer	REP	ORT NO	UES/TR/21-22/04226 UES/21-22/W/07586		
TO,		LAB	REF NO			
HINDALCO INDUSTR	·	DAT	E OF SAMPLING	24/11/2	021	7/
GARE PALMA - IV/5,		DAT	E OF RECEIPT	25/11/2	021	
U/G COAL MINE, VILL	AGE – MILUPARA,	DAT	E OF REPORT	01/12/2	01/12/2021	
BLOCK-TAMNAR, DISTT RAIGARH (C	.G.) 496107	DAT	E OF ANALYSIS	START: 25/11/2021 END: 29/11/202		
		SAMPI	E DETAILS		1940	
SAMPLE TYPE	GROUND WATER		ORDER /REFERE	NCE:		SRV/2122/0049, 24-JULY-2021
CUSTMER SAMPLE ID	MILUPARA VILLAGE NEAR P HIL (DUGWELL)	PHC-	SAMPLE CONDIT	ION AT	ок	
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		СНЕМІ	ST
SAMPLING PROCEDURE IS:3025(PART I):1987 RA 2003; APHA 22ND ED. 2012,1060-B,1-39		QUANTITY RECEIVED		5 LTR		

#### REPORT NO. - 04226

			TEST REPORT				
SR.		TELL		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 <sup>nd</sup> Ed.2012,4500-H <sup>+</sup> -B, 4-92	6.5-8.5	NoRelaxatio n	6.97	
5	Turbidity	NTU	APHA 22 <sup>nd</sup> Ed.2012,2130-B,2-13	1	5	1.86	
6	Electrical Conductivity	μS/cm	IS 3025(part-14):1984, RA 2013	_	-	274.0	
7	Residual Chlorine	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-Cl-G, 4 – 69	0.2	1	N.D.	
8	Total Solid	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2540- B, 2- 64	-	-	177.4	
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	164.8	
10	Total Suspended Solids	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2540- D, 2- 66	-	-	12.6	
11	Alkalinity Total (as CaCO <sub>3</sub> )	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	40.0	
12	Total Hardness ( as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2340-C, 2- 44,45	200	600	92.0	
13	Calcium Hardness (as CaCO3)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ca- B,3-67	-	-	54.0	
14	Magnesium Hardness (as CaCO3)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg- B,3-84	-	-	38.0	
15	Calcium (as Ca)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ca- B,3-67	75	200	21.6	
16	Magnesium (as Mg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500–Mg-B, 3-84	30	100	9.23	
17	Chloride (as CI)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-CI-B, 4-72	250	1000	18.9	
18	Sulphate (as SO <sub>4</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-SO <sub>4</sub> - E, 4-190	200	400	25.2	
19	Nitrate (as NO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-NO <sub>3</sub> - B,4-122	45	NoRelaxatio n	4.2	
20	Phosphate (as P)	mg/Lit	APHA 22ndEd.2012,4500-P-C, 4-153	-	-	N.D.	



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

			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	-	-	6.4
22	Potassium (as K)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-K-B, 3-87	-	-	1.2
23	Boron (as B)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-B-B, 4-25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B,3- 18	0.3	NoRelaxatio n	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.03
26	Manganese (as Mn)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	0.1	0.3	0.15
27	Lead (as Pb)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	0.01	NoRelaxatio n	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Cd, 3- 105	0.003	NoRelaxatio n	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3112-B, 3- 23	0.001	NoRelaxatio n	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.01	NoRelaxatio	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxatio n	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,5540-C, 5-53	0.2	1.0	N.D.
37	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic	μg/Lit	APHA 22 <sup>nd</sup> 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.
40	Oil & Grease	mg/Lit	2003 IS 3025 (Part 39):1991, RA	-	Relaxation -	N.D.
Micro	biological Analysis	1	2003		L	
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			1 2001111	<u>Jumple</u>	
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.



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

REPORT NO. - 04226

			TEST REPORT			
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 1 Acceptable Limit	10500:2012 Permissible	RESULT
5	O,p DDD	µg/L	US EPA 508-1995			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	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.	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	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	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.

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.

गायिय PREPARED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS 1/12/21

AUTHORIZED SIGNATORY

---End of the test report--



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

Name & Address Of The Cus	tomer		REPORT NO	UES/TR/21-22/0	4191	
TO,		5.1	LAB REF NO	EF NO UES/21-22/W/07513		
HINDALCO INDUST	RIES LIMITED,		DATE OF SAMPLING	23/11/2021		
GARE PALMA - IV/4	4, COAL MINE, VILLAC	BE -	DATE OF RECEIPT	24/11/2021		
BANKHETA, POST	-MILUPARA,		DATE OF REPORT 01/12/2021			
DISTT RAIGARH	(C.G.) 496107.		DATE OF ANALYSIS	START: 24/11/2021	END: 27/11/2021	
SAMPLE TYPE	GROUND WATER		ORDER /REFERENCE:	N/PO/SRV/2122/0045, DTD. 24-JULY-202		
SAMPLE TYPE	GROUND WATER		ORDER /REFERENCE:			
CUCMAND CAMPIE ID	CANTA HILLAGE (DUCKE	77.7	SAMPLE CONDITION	OV		
CUSTMER SAMPLE ID	SAKTA VILLAGE, (DUGWE	ELL)	SAMPLE CONDITION AT RECEIPT	ок		
CUSTMER SAMPLE ID PACKING OF SAMPLE	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	MA	041	01

			TEST REPORT			
SR.	Professional Profession			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	2.4
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeable
3	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeabl
4	рН	-	APHA 22 <sup>nd</sup> Ed.2012,4500-H <sup>+</sup> -B, 4-92	6.5-8.5	NoRelaxatio n	7.35
5	Turbidity	NTU	APHA 22 <sup>nd</sup> Ed.2012,2130-B,2-13	1	5	2.4
6	Electrical Conductivity	μS/cm	IS 3025(part-14):1984, RA 2013	·	-	246.4
7	Residual Chlorine	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-Cl-G, 4 - 69	0.2	1	N.D.
8	Total Solid	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2540- B, 2- 64	-	-	157.0
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	152.4
10	Total Suspended Solids	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2540- D, 2- 66	-	-	4.6
11	Alkalinity Total (as CaCO <sub>3</sub> )	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	78.0
12	Total Hardness ( as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2340-C, 2- 44,45	200	600	104.0
13	Calcium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500–Ca-B, 3-67	_	-	48.0
14	Magnesium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84	-	-	56.0
15	Calcium (as Ca)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500–Ca-B, 3-67	75	200	19.2
16	Magnesium (as Mg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84	30	100	13.6
17	Chloride (as CI)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-Cl-B, 4-72	250	1000	19.9
18	Sulphate (as SO <sub>4</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-SO <sub>4</sub> -E, 4-190	200	400	27.5
19	Nitrate (as NO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500–NO <sub>3</sub> -B, 4-122	45	NoRelaxatio n	0.73
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	-	-	15.1



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

4			TEST REPORT			
SR.				AS PER IS	10500:2012	
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
22	Potassium (as K)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-K-B, 3-87	-	-	0.68
23	Boron (as B)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-B-B, 4-25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B,3-18	0.3	NoRelaxatio n	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.11
26	Manganese (as Mn)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	0.1	0.3	0.09
27	Lead (as Pb)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	0.01	NoRelaxatio n	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Cd, 3- 105	0.003	NoRelaxatio n	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3112-B, 3- 23	0.001	NoRelaxatio n	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.01	NoRelaxatio n	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxatio n	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,5540-C, 5-53	0.2	1.0	N.D.
37	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 <sup>nd</sup> Ed.2012,6440-6-93	0.0001	NoRelaxatio	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	-	Relaxation -	N.D.
Micro	biological Analysis		2003		LL	
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	Absent
Pesti	cides		•			
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.



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

Report No.04191

			TEST REPORT				
SR.				AS PER IS	AS PER IS 10500:2012		
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit			
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.	.4	N.D.	
13	Monocrotophos	μg/L	US EPA 8141A-1994	1	L	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	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	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

REVIEWED 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	REPO	ORT NO	UES/TR/	21-22/0	14227
TO,	LA			UES/21-	22/W/07587	
HINDALCO INDUSTR	IES LIMITED,	DATE	E OF SAMPLING	24/11/2	021	
	E PALMA – IV/5, MILUPARA			25/11/2	021	
U/G COAL MINE, VILL	AGE – MILUPARA,	DATE	E OF REPORT	01/12/2	021	
BLOCK-TAMNAR, DISTT RAIGARH (C	.G.) 496107	DATI	E OF ANALYSIS	START: 25/11/2021 END: 29/11/20		END: 29/11/2021
		SAMPI	E DETAILS			
SAMPLE TYPE	GROUND WATER		ORDER /REFERE	INCE:		SRV/2122/0049, 24-JULY-2021
CUSTMER SAMPLE ID	SIDARPARA VILLAGE (DUG	WELL)	SAMPLE CONDIT	TION AT	ок	
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	TS:3025/PART T1:1987 RA 2		QUANTITY RECEIVED		5 LTR	

REPORT NO. - 04227

			TEST REPORT				
SR.		10		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	рН	-	APHA 22 <sup>nd</sup> Ed.2012,4500-H <sup>+</sup> -B, 4-92	6.5-8.5	NoRelaxati on	7.54	
5	Turbidity	NTU	APHA 22 <sup>nd</sup> Ed.2012,2130-B,2-13	1	5	0.43	
6	Electrical Conductivity	μS/cm	IS 3025(part-14):1984, RA 2013	-	-	332.0	
7	Residual Chlorine	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-CI-G, 4 - 69	0.2	1	N.D.	
8	Total Solid	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2540- B, 2- 64		-	207.0	
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	204.4	
10	Total Suspended Solids	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2540- D, 2- 66	-	-	2.6	
11	Alkalinity Total (as CaCO <sub>3</sub> )	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	58.0	
12	Total Hardness ( as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2340-C, 2-44,45	200	600	92.0	
13	Calcium Hardness (as CaCO3)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ca- B,3-67	-	-	54.0	
14	Magnesium Hardness (as CaCO3)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg- B,3-84	-	-	38.0	
15	Calcium (as Ca)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ca- B,3-67	75	200	21.6	
16	Magnesium (as Mg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84	30	100	9.23	
17	Chloride (as CI)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-CI-B, 4-72	250	1000	18.9	
18	Sulphate (as SO <sub>4</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-SO <sub>4</sub> -E, 4-190	200	400	15.3	
19	Nitrate (as NO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-NO <sub>3</sub> - B,4-122	45	NoRelaxati on	4.1	
20	Phosphate (as P)	mg/Lit	APHA 22ndEd.2012,4500-P-C, 4-153	-	-	N.D.	



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

			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	( <del>-</del>	-	13.5
22	Potassium (as K)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500–K-B, 3-87	-	-	0.9
23	Boron (as B)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500–B-B, 4- 25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B,3-18	0.3	NoRelaxati on	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.12
26	Manganese (as Mn)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	0.1	0.3	0.09
27	Lead (as Pb)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	0.01	NoRelaxati on	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Cd, 3- 105	0.003	NoRelaxati on	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3112-B, 3-23	0.001	NoRelaxati on	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.01	NoRelaxati on	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxati on	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,5540-C, 5-53	0.2	1.0	N.D.
37	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 <sup>nd</sup> 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.
Micro	biological Analysis		\$			
1	Total Coliforms	MPN/ 100 ML	IS:1622:1981: RA:2019	Shall not be any 100 n		Absent
2	Faecal coliform	MPN/ 100ml	IS:1622:1981: RA:2019	Shall not be any 100 n		Absent
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019	Shall not be any 100m	detectable in	Absent
Pesti	cides				***************************************	
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.



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

	TEST REPORT								
SR.			New York Control of the Control of t	AS PER IS 1	10500:2012				
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT			
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.	4	N.D.			
13	Monocrotophos	µg/L	US EPA 8141A-1994	1		N.D.			
14	Ethion	μg/L	US EPA 8141A-1994	3	B	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	30	0	N.D.			
20	Alachlor	µg/L	US EPA 508- 1995	20	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.			

#### 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.

REVIEWED BY

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 Cus	tamer		REPORT NO	UES/TR/21-22/0	4192	
TO,			LAB REF NO	514		
HINDALCO INDUST	RIES LIMITED,		DATE OF SAMPLING 23/11/2021			
GARE PALMA - IV/4	4, COAL MINE, VILLAC	BE -	DATE OF RECEIPT	24/11/2021		
BANKHETA, POST	-MILUPARA,		DATE OF REPORT	F REPORT 01/12/2021		
DISTT RAIGARH	TANK AND THE STATE OF THE STATE		DATE OF ANALYSIS	START: 24/11/2021	END: 27/11/2021	
CAMPTE MYDE	MPLE TYPE GROUND WATER					
SAMPLE TYPE GROUND WATER						
SAMPLE TIPE	GROUND WATER		ORDER /REFERENCE:	N/PO/SRV/2122/004	5, DTD. 24-JULY-2021	
CUSTMER SAMPLE ID	BELJOR VILLAGE (DUGWE	ELL)	ORDER /REFERENCE: SAMPLE CONDITION AT RECEIPT	N/PO/SRV/2122/004:	5, DTD. 24-JULY-2021	
		ELL) SEALED	SAMPLE CONDITION		5, DTD. 24-JULY-2021	

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	<1		
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeable		
3	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeable		
4	pH	-	APHA 22 <sup>nd</sup> Ed.2012,4500-H <sup>+</sup> -B, 4-92	6.5-8.5	NoRelaxatio n	7.53		
5	Turbidity	NTU	APHA 22 <sup>nd</sup> Ed.2012,2130-B,2-13	1	5	0.36		
6	Electrical Conductivity	μS/cm	IS 3025(part-14):1984, RA 2013	-	_	564.0		
7	Residual Chlorine	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-Cl-G, 4 - 69	0.2	1	N.D.		
8	Total Solid	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2540- B, 2- 64	=	-	351.0		
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	346.2		
10	Total Suspended Solids	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2540- D, 2- 66	¥	-	4.8		
11	Alkalinity Total (as CaCO <sub>3</sub> )	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	166.0		
12	Total Hardness ( as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2340-C, 2- 44,45	200	600	192.0		
13	Calcium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ca-B, 3-67	=	-	112.0		
14	Magnesium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84	-	-	80.0		
15	Calcium (as Ca)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500–Ca-B, 3-67	75	200	44.8		
16	Magnesium (as Mg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84	30	100	19.4		
17	Chloride (as CI)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-Cl-B, 4-72	250	1000	46.9		
18	Sulphate (as SO <sub>4</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-SO <sub>4</sub> -E, 4-190	200	400	27.3		
19	Nitrate (as NO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500−NO <sub>3</sub> -B, 4-122	45	NoRelaxatio n	1.56		
20	Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P- C,4-153	-	-	N.D.		



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

			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	-	-	5.6
22	Potassium (as K)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-K-B, 3-87	-	-	1.18
23	Boron (as B)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-B-B, 4-25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B,3-18	0.3	NoRelaxatio n	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.09
26	Manganese (as Mn)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	0.1	0.3	0.14
27	Lead (as Pb)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	0.01	NoRelaxatio n	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Cd, 3- 105	0.003	NoRelaxatio n	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3112-B, 3- 23	0.001	NoRelaxatio n	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3- 38	0.01	NoRelaxatio n	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxatio n	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,5540-C, 5- 53	0.2	1.0	N.D.
37	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 <sup>nd</sup> Ed.2012,6440-6-93	0.0001	NoRelaxatio	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	-	- METAVACION	N.D.
Micro	biological Analysis				I	
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
Pesti	cides			2.1, 100	Julipic	
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.



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

Report No.04192

	TEST REPORT								
					10500:2012				
SR. NO.	PARAMETER	PARAMETER	PARAMETER UNIT METHOD		Acceptable Limit	Permissible limit	RESULT		
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	N.D.			
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.

#### Terms & conditions

REVIEWED BY

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

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

01/12/21

End of the test report-

# Ground Water Level Monitoring Report in and around the Coal Mine Area (From Jan 2022 to Mar 2022)

Sr. No.	Location	Types of Structure		In Meters	
			Ground Water level (BGL) Jan 2022	Ground Water level (BGL) Feb 2022	Ground Water level (BGL) Mar 2022
1	Bankheta (Near HIL Office)	Borewell/ AWLR	11.34	11.74	12.21
2	Banjikhol (Near Office)	Borewell/ AWLR	24.48	24.66	24.85
3	Milupara (Near Office)	Borewell/ AWLR	11.17	11.71	12.21
4	HIL Staff Quarter	Borewell/ AWLR	6.57	7.04	7.96
5	Milupara Village (PHC-HIL)	Dugwell	4.43	4.68	5.58
6	Sakta Village (Near Primary School)	Dugwell	3.18	3.31	3.85
7	Sidarpara Village (Near Primary School)	Dugwell	8.68	8.83	9.90
8	Beljor Village	Dugwell	6.47	6.72	6.84



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

Name & Address Of	The Customer		REPORT NO	U	ES/TR/21-22/0	5991	
TO,			LAB REF NO UES/21-22/W/010309  DATE OF SAMPLING 24/01/2022  DATE OF PECKEPT 25/01/2022			0309	
HINDALCO INDUSTR	SECTION SECTIO						
GARE PALMA - IV/4, VILLAGE - BANKHET							
POST -MILUPARA,	~		DATE OF REPORT	0:	02/02/2022		
DISTT RAIGARH (C	.G.) 496107.		DATE OF ANALYSIS	83	PART: 25/01/2022	END: 29/01/2022	
SAMPLE TYPE	GROUNDWATER	S	ORDER /REFERENCE:		N/PO/SRV/2122/	0045, DTD: 24-JULY-2021	
CUSTMER SAMPLE ID	BANKHETA MINE (PIEZOMETER) AWLR		SAMPLE CONDITION AT	r	ок		
PACKING OF SAMPLE 31 X 1 MO. FVC CAN SEALS 1 5 X 1 MO. FVC CAN SEALS		SEALED	SAMPLE COLLECTED BY	NY CHINEST			
IS:3025(PART I):1987 RA  SAMPLING PROCEDURE 2003; APMA 22ND ED. 2012, 1060-B, 1-39			QUANTITY RECEIVED		5 LTR		

	TEST REPORT									
SR.				AS PER IS	10500:2012					
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT				
1	Colour	Hazen	1S:3025:(Part-4)	5	15	<1				
2	Odour	1.5	1S 3025(part-5)	Agreeable	Agreeable	Agreeable				
3	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeable				
4	pH	100	APHA 22 <sup>nd</sup> Ed.2012,4500-H*-B, 4-92	6.5-8.5	NoRelaxatio n	7.72				
5	Turbidity	NTU	APHA 22 <sup>rd</sup> Ed.2012,2130-B,2-13	1	5	1.21				
6	Electrical Conductivity	μS/cm	IS 3025(part-14):1984, RA 2013	-	-	178.4				
7	Residual Chlorine	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-CI-G, 4 - 69	0.2	1	N.D.				
8	Total Solid	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,2540- B, 2- 64	-		111.4				
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	108.6				
10	Total Suspended Solids	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2540- D, 2- 66	012,2540- D, 2-		2.8				
11	Alkalinity Total (as CaCO <sub>3</sub> )	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	40.0				
12	Total Hardness ( as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,2340-C, 2- 44,45	200	600	54.0				
13	Calcium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ca-B, 3-67	-	-	32.0				
14	Magnesium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84	-	•	22.0				
15	Calcium (as Ca)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-Ca-B, 3-67	75	200	12.8				
16	Magnesium (as Mg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84	30	100	5.34				
17	Chloride (as CI)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-CI-B, 4-72	250	1000	14.9				
18	Sulphate (as SO <sub>4</sub> )	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-SO <sub>4</sub> -E, 4-190	200	400	11.6				
19	Nitrate (as NO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-NO <sub>3</sub> -B, 4-122	45	NoRelaxatio n	0.36				
20	Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P-C, 4-153	8		N.D.				
21	Sodium (as Na)	mg/Lit	APHA 22nd Ed.2012,3500-Na-B, 3-97	2		16.4				
22	Potassium (as K)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-K-B, 3-	-	-	1.26				



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

Repor		

			TEST REPORT			
SR.					10500:2012	The same of the sa
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESUL
			87			
23	Boron (as B)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-B-B, 4- 25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3111-B,3-18	0.3	NoRelaxatio n	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.13
26	Manganese (as Mn)	mg/Lit	PHA 22 <sup>rd</sup> Ed.2012,3111-B, 3-18 0.1		0.3	N.D.
27	Lead (as Pb)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3111-B, 3-18	0.01	NoRelaxatio n	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-NI, 3- 108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22™ Ed.2012,3111-B, 3-18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-Cd, 3- 105	0.003	NoRelaxatio n	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3112-B, 3-23	0.001	NoRelaxatio	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3114-C, 3-38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3114-C, 3-38	0.01	NoRelaxatio n	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxatio n	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,5540-C, 5-53	0.2	1.0	N.D.
37	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	µg/Lit	APHA 22 <sup>rd</sup> 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	발	-	N.D.
Micro	biological 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	Absent
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019	Shall not be	detectable in	Absent
Pesti	cides			and the state of t	ALL DANSAGE CO.	
1	p,p DDT	µg/L	US EPA 508-1995		1	N.D.
2	o.p DDT	µg/L	US EPA 508-1995	0	1	N.D.
3	p,pDDE	µg/L	US EPA 508-1995	3	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.



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

Report No.05991

	TEST REPORT								
SR.	THE RESERVE OF THE PARTY OF THE		Andrew Matter and Chair	AS PER IS	10500:2012				
NO.	PARAMETER	PARAMETER UNIT		METHOD OF TEST	Acceptable Permissible		RESULT		
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	8141A-1994 30		N.D.			
16	Phorate	µg/L	US EPA 8141A-1994		2				
17	Phoratesulphoxide	µg/L	US EPA 8141A-1994			N.D.			
18	Phoratesulphone	µg/L	US EPA 8141A-1994		- 2	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	0.0	03	N.D.			

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

# REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

REVIEWED 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

02/02

End of the test report-



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

Name & Address Of The Co.	Mauter	REF	REPORT NO UES/TR/21-22/05992				
TO,	STRIES LIMITED.	LAN	REF NO	UES/21-22/W/010310			
GARE PALMA - I		DAT	THE OF SAMPLING	24/	01/2022		
VILLAGE - BANK		дат	E OF RECEIPT	25/	25/01/2022		
POST -MILUPARA	Α,	nan	DATE OF REPORT		/02/2022		
DISTT RAIGARH (C.G.) 496107.			DATE OF ANALYSIS S		START: 25/01/2022 END: 29/01/202		
	Vacana i salaya da la la	SAMI	LE DETAILS				
SAMPLE TYPE	GROUND WATER		ORDER /REFERENC	DER /REFERENCE: N/PO/SRV/2122/0045, 2021		22/0045, DTD. 24-JULY-	
CUSTMER SAMPLE ID	JUSTMER SAMPLE ID BANJIKHOL MINE (PIEZCMETER) AWLR		SAMPLE COMDITION RECEIPT	PLE COMDITION AT 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 COLLECTS	ID BY	CHEMIST		
SAMPLING PROCEDURE IS: 3025 (PART I): 1987 RA 2003; APRA 22ND ED. 2012, 1060-B,1-39			QUANTITY RECEIVED 5 LTR				

			TEST REPORT			
SR.		100		AS PER IS	10500:2012	EDUBATE S
NO.	PARAMETER UNIT METHOD OF TE		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	Agreeabl
3	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeabl
4	рН	20	APHA 22*d Ed.2012,4500-H*-B, 4-92	6.5-8.5	NoRelaxation	6.84
5	Turbidity	NTU	APHA 22 <sup>rd</sup> Ed.2012,2130-B,2-13	1	5	2.4
6	Electrical Conductivity	μS/cm	IS 3025(part-14):1984, RA 2013	-	-	170.2
7	Residual Chlorine	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-CI-G, 4 - 69	0.2	1	N.D.
8	Total Solid	mg/Lit	PHA 22 <sup>nl</sup> Ed.2012,2540- B, 2-		-	115.4
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	t-16):1984, RA 2006 500		112.6
10	Total Suspended Solids	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2540- D, 2- 66			2.8
11	Alkalinity Total (as CaCO <sub>1</sub> )	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	48.0
12	Total Hardness ( as CaCO <sub>1</sub> )	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,2340-C, 2- 44,45	200	600	80.0
13	Calcium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ca-B, 3-67		-	46.0
14	Magnesium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84	151	-	34.0
15	Calcium (as Ca)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ca-B, 3-67	75	200	18.4
16	Magnesium (as Mg)	mg/Lit	APHA 22 <sup>HE</sup> Ed.2012,3500-Mg-B, 3-84	30	100	8.26
17	Chloride (as CI)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-CI-B, 4-72	250	1000	14.9
18	Sulphate (as SO <sub>4</sub> )	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-SO <sub>4</sub> -E, 4-190	200 400		13.4
19	Nitrate (as NO <sub>3</sub> )	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-NO <sub>3</sub> - B,4-122	45	NoRelaxation	2.1
20	Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P-C, 4-153		-	N.D.



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

			TEST REPORT			
SR.	200 600000	- Contract		AS PER IS	10500:2012	- Warner
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	•	- 20	8.4
22	Potassium (as K)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-K-B, 3-87	20		0.20
23	Boron (as B)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-B-B, 4-25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B,3-18	0.3	NoRelaxation	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 <sup>st</sup> Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	N.D.
26	Manganese (as Mn)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	0.1	0.3	N.D.
27	Lead (as Pb)	mg/Lit	APHA 22nd Ed.2012,3111-B, 3-18	0.01	NoRelaxation	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3111-B, 3-18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-Cd, 3- 105	0.003	NoRelaxation	N.D.
32	Mercury (as Hg)	mg/Lit	To the second se		NoRelaxation	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3114-C, 3-38 0.01		0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.01	NoRelaxation	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxation	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 <sup>st</sup> Ed.2012,5540-C, 5-53	0.2	1.0	N.D.
37	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	µg/Lit	APHA 22 <sup>rd</sup> Ed.2012,6440-6-93	0.0001	NoRelaxation	N.D.
39	Mineral Oil	mg/Lit	15 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					-
1	Total Coliforms	MPN/ 100 ML	IS:1622:1981: RA:2019		etectable in any I sample	Absent
2	Faecal Coliform	MPN/ 100mi	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 sample	Absent
estic	ides			244111	1/2	
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.



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

Report No.05992

			TEST REPORT			
SR.	THE RESERVE OF THE PARTY OF THE		Market Market	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.	0.04	
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	- 4	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	19	190	
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	0.03	

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

### REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

REVIEWED BY

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-



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

Name il Address Of the Ca TO,	ITSUMAY.	1 1 1 1 1 1 1 1 1	REF NO		UES/TR/21-22/06049 UES/21-22/W/010456		
HINDALCO INDUSTR	IES LIMITED,	-	OF SAMPLING	The second secon	701	0456	
GARE PALMA - IV/5,	MILUPARA	Distance of the last of the la	and the same of th	24/01/2022	-		
U/G COAL MINE, VILL	AGE - MILUPARA,		OF RECEIPT	02/02/2022			
BLOCK-TAMNAR, DISTT RAIGARH (C		OF ANALYSIS	START: 25/01/20				
PICTIT HATCHATTIC	.0.7 400 107	SAMOT	E DETAILS	1	-	MG (27) 02/ 2022	
SAMPLE TYPE	GROUND WATER	COLUMN TO A STATE AND A STATE			14/2	O/SRV/2122/0049.	
OWNER TEED			ORDER /REFERENCE:		DTD. 24-JULY-2021		
CUSTMEN SAMPLE ID	NEAR MILUPARA MINES O PIESCMETER -AWLE	FFICE	SAMPLE CONDITION AT RECEIPT		OR		
PACKING OF SAMPLE	3 L X I NO. PVC CAN 1 L X I NO. PVC CAN 1 L X I NO. GLASS BOTTLE	SEALED	SAMPLE COLLS	nomin sy	csus	MZST	
AMPLING PROCEDURE 15:3025(PART I):1987 RA 1 APNA 22ND ED. 2012, 1060			QUANTITY REC	EIVED 5 2		LTR	

#### REPORT NO. 06049

			TEST REPORT			
SR.	100	li tuis		AS PER I	\$ 10500:2012	
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
1	Colour	Hazen	15:3025:(Part-4)	5	15	<1
2	Odour	-	15 3025(part-5)	Agreeable	Agreeable	Agreeable
3	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeable
4	pH		APHA 22 <sup>rd</sup> Ed.2012,4500-H*-B, 4-92	6.5-8.5	No Relaxation	6.53
5	Turbidity	NTU	APHA 22 <sup>rd</sup> Ed.2012,2130-B,2-13	1	5	2.2
6	Electrical Conductivity	μS/cm	15 3025(part-14):1964, RA 2013	-	2	194.0
7	Residual Chlorine	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-Cl-G,4 - 69	0.2	1	N.D.
8	Total Solid	mg/Lit	APHA 22 <sup>M</sup> Ed.2012,2540- B, 2- 64			128.8
9	Total Dissolved Solids	mg/Lit	15 3025(part-16):1984, RA 2006	500	2000	120.4
10	Total Suspended Solids	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,2540- D, 2- 66		-	8.4
11	Alkalinity Total (as CaCO <sub>3</sub> )	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	32.0
12	Total Hardness ( as CaCO <sub>1</sub> )	mg/Lit	APHA 22 <sup>M</sup> Ed.2012,2340-C, 2- 44,45	200	600	68.0
13	Calcium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ca-8, 3-67	-		38.0
14	Magnesium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-Mg-B, 3-84	-	-	30.0
15	Calcium (as Ca)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-Ca-B, 3-67	75	200	15.2 .
16	Magnesium (as Mg)	mg/Lit	APHA 22 <sup>™</sup> Ed.2012,3500-Mg-B, 3-84	30	100	7.2
17	Chloride (as CI)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-CI-B, 4-72	250	1000	13.9
18	Sulphate (as SO <sub>4</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-SO <sub>4</sub> - E,4-190	200	400	12.4
19	Nitrate (as NO <sub>3</sub> )	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-NO <sub>2</sub> -B, 4-122	45	No Relaxation	2.3



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

			TEST REPORT			
SR.				AS PER I	S 10500:2012	
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	85		N.D.
20	Sodium (as Na)	mg/Lit	APHA 22ndEd.2012,3500-Na-B, 3-97	-	-	7.4
21	Potassium (as K)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-K-B, 3- 87		-	0.38
22	Boron (as B)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-B-B, 4- 25	0.5	1.0	N.D.
23	Iron (as Fe)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3111-B,3-18	0.3	No Relaxation	N.D.
24	Fluoride (as F)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-F-B 8D, 4-84 & 87	1	1.5	0.09
25	Manganese (as Mn)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3111-B, 3-18	0.1	0.3	N.D.
26	Lead (as Pb)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3111-B, 3-18	0.01	No	N.D.
27	Nickel (as Ni)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ni, 3-	0.02	Relaxation No	N.D.
28	Zinc (as Zn)	mg/Lit	108 APHA 22" Ed.2012,3111-B, 3-18	5	Relaxation 15	N.D.
29	Copper (as Cu)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3111-B, 3-18	0.05	1.5	
30	Cadmium (as Cd)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-Cd,3- 105	0.003	No Relaxation	N.D.
31	Mercury (as Hg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3112-B, 3-23	0.001	No	N.D.
32	Arsenic (as As)	mq/Lit	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.01	Relaxation 0.05	N.D.
33	Selenium (as Se)	mg/lit	APHA 22 <sup>rd</sup> Ed.2012,3114-C, 3-38	0.01	No	N.D.
34	Chromium (as Cr)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-Cr-B, 3-69	0.05	Relaxation No	N.D.
35	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,5540-C, 5-53	0.2	Relaxation	N.D.
36	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,5540-8 & C, 5-47	0.001	0.002	N.D.
37	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22** Ed.2012,6440-6-93	0.0001	No Relaxation	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	15 3025 (Part 39):1991, RA 2003	-	-	N.D.
licro	biological Analysis		12/03/00 A			
1	Total Coliforms	MPN/ 100 ML	IS:1622:1981: RA:2019		etectable in any	Absent
2	Faecal coliform	MPN/ 100ml	IS:1622:1981: RA:2019	Shall not be d	etectable in any I sample	Absent
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019	Shall not be d	etectable in any	Absent
estic	ides	Asserted		100ml	sample	Patricia (
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.



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

REPORT NO. 06049

			TEST REPOR	RT TS		
SR.				AS PER I	\$ 10500:2012	
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
3	p,pDDE	µg/L	US EPA 508-1995		1	N.D.
4	p <sub>r</sub> 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	AT TOOL	0.04	N.D.
10	Alpha-Endosulfan	μg/L	US EPA 508-1995	JULIA	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		N.D.
14	Ethion	pg/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	1	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	pg/L	US EPA 508-1995		0.03	N.D.

# REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

REVIEWED BY

Terms & concurrons

The report for publication, erbitration or as largel 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

22

AUTHORIZED SIGNATORY

-- End of the test report-



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

Name & Address Of The Co.	stomer.	REPOR	RT NO	UES/TR/21-	22/0	22/06048	
TO,		LAB I	REF NO	MO UES/21-22/		W/010455	
HINDALCO INDUSTR	IES LIMITED,	LIMITED, DATE			3		
GARE PALMA - IV/5,		DATE	OF RECEIPT	25/01/2022			
U/G COAL MINE, VILL	DATE	OF REPORT	02/02/2022	1			
BLOCK-TAMNAR, DISTT RAIGARH (C	DATE	DATE OF ANALYSIS START: 25/01/		2022 END: 29/01/2022			
		SAMP	LE DETAILS		- /- 11.5		
SAMPLE TIPE	GROUND WATER		ONDER /WEFERENCE:		M/PO/SRV/2122/0049, DTD. 24-JULY-2021		
CUSTMER SAMPLE ID	STAFF QUARTER-BANJIRHOL PIESCMETER (ANLR)		SAMPLE CONDITION AT RECEIPT		OR		
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 COLLEC	THE WY	CHR	ast	
APPLING PROCEDURE IS: 3025 (PART I): 1987 RA 2003; APPA 22ND ED. 2012, 1060-8, 1-39		GUANTITY RECEIVED		5 13	DR:		

	TEST REPORT									
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE RESERVE TO SERVE THE	LE LIMIT FOR IR (IS 10500:2012) Permissible limit	RESULT				
1	Colour	Haren	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 <sup>nd</sup> Ed.2012,4500-H*-B, 4-92	6.5-8.5	No Relaxation	6,54				
5	Turbidity	NTU	APHA 22 <sup>MEd.2012,2130-B,2-13</sup>	1	5	0.98				
6	Electrical Conductivity	µS/cm	IS 3025(part-14):1984, RA 2013	-	-	232.4				
7	Residual Chlorine	mg/Lit	APHA 22 <sup>™</sup> Ed.2012,4500-CI-G, 4 - 69	PHA 22 <sup>™</sup> Ed.2012,4500-Cl-G, 4 0.2		N.D.				
8	Total Solid	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2540- B, 2- 64	A 22 <sup>rd</sup> Ed.2012,2540- B, 2-		161.0				
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	146.8				
10	Total Suspended Solids	mg/Lit	APHA 22 <sup>rd</sup> Ed,2012,2540- D, 2- 66			14.2				
11	Alkalinity Total (as CaCO <sub>3</sub> )	mg/Lit	15 3025(part-23):1986, RA 2003	200	600	42.0				
12	Total Hardness ( as CaCO <sub>1</sub> )	mg/Lit	APHA 22" Ed.2012,2340-C, 2- 44,45	200	600	88.0				
13	Calcium Hardness (as CaCO <sub>1</sub> )	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-Ca-B, 3-67		-	50.0				
14	Magnesium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84			38.0				
15	Calcium (as Ca)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ca-B, 3-67	75	200	20.0				
16	Magnesium (as Mg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84	30	100	9.23				
17	Chloride (as Cl)	mg/Lit	4-72			30.9				
18	Sulphate (as SO <sub>4</sub> )	mg/Lit	APHA 22 <sup>M</sup> Ed.2012,4500-50 <sub>4</sub> - E,4-190	200	400	21.8				
19	Nitrate (as NO <sub>3</sub> )	mg/Lit	APHA 22 <sup>st</sup> Ed.2012,4500-NO <sub>3</sub> - 8,4-122	45	No Relaxation	0.54				
20	Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P-C, 4-153			N.D.				



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

			TEST REPORT			1 12
SR.	PARAMETER	UNIT	METHOD OF TEST	DRINKING WATE	LE LIMIT FOR ER (IS 10500:2012)	RESULT
NO.	PARAMETER	UMIT	method of test	Acceptable Limit	Permissible limit	
21	Sodium (as Na)	mg/Lit	APHA 22ndEd.2012,3500-Na-B, 3-97			5.4
22	Potassium (as K)	mg/Lit	APHA 22 <sup>NI</sup> Ed.2012,3500-K-B, 3- 87	-		2.1
23	Boron (as B)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-B-B, 4- 25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 <sup>nt</sup> Ed.2012,3111-B,3-18	0.3	No Relaxation	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22*9 Ed.2012,4500-F-B 8D, 4-84 & 87	1	1.5	0.12
26	Manganese (as Mn)	mg/Lit	APHA 22** Ed.2012,3111-B, 3-18	0.1	0.3	N.D.
27	Lead (as Pb)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3-18	0.01	No Relaxation	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 <sup>st</sup> Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3111-B, 3-18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22 <sup>rd</sup> Ed 2012,3111-B, 3-18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-Cd, 3- 105	0.003	No Relaxation	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3112-B, 3-23	0.001	No Relaxation	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22™ Ed.2012,3114-C, 3-38 0.0		0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 <sup>™</sup> Ed.2012,3114-C, 3-38	0.01	No Relaxation	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22 <sup>nll</sup> Ed:2012,3500-Cr-B, 3-69	0.05	No Relaxation	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,5540-C, 5-53	0.2	1.0	N.D.
37	Phenolic Compound (as C <sub>e</sub> H <sub>2</sub> OH)	mg/Lit	APHA 22 <sup>st</sup> Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 <sup>nd</sup> Ed.2012,6440-6-93	0.0001	No Relaxation	N.D.
39	Mineral Oil	mg/Lit	1S 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	biological Analysis					14
1	Total Coliforms	MPN/ 100 ML	IS:1622:1981: RA:2019		detectable in ml sample	Absent
2	Faecal collform	MPN/ 100ml	IS:1622:1901; RA:2019		detectable in mi sample	Absent
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019		detectable in ml sample	Absent
Pestic	ides					
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	סטט קק	µg/L	US EPA 508-1995		1	N.D.
5	0,p 000	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	ug/L	US EPA 508-1995	0	.01	N.D.



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

REFORT NO. 06048

			TEST REPORT	7.0		
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	ACCEPTABL DRINKING WATER Acceptable Limit		RESULT
8	Beta-HCH	µg/L	US EPA 508-1995		0.04	
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	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	1	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	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	pg/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	0.03		N.D.

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

02/02

REVIEWED BY

- Terms & conditions

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

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

  Test sample will be retained fort's days after issue of test report unless otherwise agreed with customer.

  This is for information as the party has asked for above testics only.

  For ULTIMATE ENVIROLY

For ULTIMATE ENVIROLYTICAL SOLUTIONS AUTHORIZED SIGNATORY

End of the test report----



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

TO, HINDALCO INDUSTR GARE PALMA - IV/5, U/G COAL MINE,VILL BLOCK-TAMNAR,	DAT DAT	REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT		UES/TR/21-22/06050 UES/21-22/W/010457 24/01/2022 25/01/2022 02/02/2022		
DISTT RAIGARH (C	.G.) 496107	-	E OF ANALYSIS	START: 25,	/01/2022	END: 29/01/2022
SAMPLE TYPE	GROUND WATER		ORDER /REFERE	MCE:		SBV/2122/0049, 24-JULY-2021
CUSTMER SAMPLE ID	MILUPARA VILLAGE MEAR P. HIL(DUGWELL)	HC-	SAMPLE COMDIT	TOW AT	on	24-7061-2021
PACKING OF SAMPLE	J L X I WO. PVC CAM I L X I WO. PVC CAM I L X I WO. GLASS DOTFLE	SEALED	SAMPLE COLLEC	TWO BY	сиями	or .
TS: 3025 (PART I): 1987 WA 2 APHA 22ND ED. 2012, 1060-8					5 LTR	

#### REPORT NO. 06050

	TEST REPORT							
SR.	THE STATE OF THE S			AS PER IS	10500:2012			
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT		
1	Colour	Hazen	1S:3025:(Part-4)	5	15	<1		
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeabl		
3	Taste	-	1S 3025(part-8)	Agreeable	Agreeable	Agreeabl		
4	pH	-	APHA 22° Ed.2012,4500-H*-B, 4-92	6.5-8.5	No Relaxation	6.74		
5	Turbidity	NTU	APHA 22 <sup>rd</sup> Ed.2012,2130-B,2-13	1	5	1.26		
6	Electrical Conductivity	µ5/cm	IS 3025(part-14):1984, RA 2013	-		272.4		
7	Residual Chlorine	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-CI-G, 4 - 69	0.2	1	N.D.		
8	Total Solid	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,2540- B, 2- 64			187.0		
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	174.6		
10	Total Suspended Solids	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,2540- D, 2- 66			12.4		
11	Alkalinity Total (as CaCO <sub>3</sub> )	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	44.0		
12	Total Hardness ( as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,2340-C, 2- 44,45	200	600	102.0		
13	Calcium Hardness (as CaCO3)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ca- 8,3-67	-		50.0		
14	Magnesium Hardness (as CaCO3)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg- B,3-84	-		52.0		
15	Calcium (as Ca)	mg/Lit	APHA 22 <sup>nf</sup> Ed.2012,3500-Ca- B,3-67	75	200	20.0		
16	Magnesium (as Mg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84	30	100	12.6		
17	Chloride (as CI)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-CI-B, 4-72	250	1000	23.9		
18	Sulphate (as SO <sub>4</sub> )	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-5O <sub>x</sub> - E, 4-190	200	400	20.7		
19	Nitrate (as NO <sub>3</sub> )	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-NO <sub>3</sub> - B,4-122	45	No Relaxation	2.6		



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

			TEST REPORT			
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS	Permissible	RESUL
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		-	5.2
22	Potassium (as K)	mg/Lit	APHA 22 <sup>™</sup> Ed.2012,3500-K-B, 3-87			1.13
23	Boron (as B)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-B-B, 4-25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3111-8,3-	0.3	No Relaxation	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-F-B BD, 4-84 & 87	1	1.5	0.06
26	Manganese (as Mn)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3111-B, 3- 18	0.1	0.3	0.14
27	Lead (as Pb)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3111-B, 3- 18	0.01	No Relaxation	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 <sup>™</sup> Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22" Ed.2012,3111-B, 3- 18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3111-B, 3- 18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-Cd, 3- 105	0.003	No Relexation	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 <sup>st</sup> Ed.2012,3112-B, 3- 23	0.001	No Relaxation	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3- 38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3114-C, 3- 38	0.01	No Relexation	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-Cr-B, 3-69	0.05	No Relaxation	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,5540-C, 5- 53	0.2	1.0	N.D.
37	Phenolic Compound (as C <sub>6</sub> H <sub>6</sub> OH)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	µg/Lit	APHA 22 <sup>rd</sup> Ed.2012,6440-6-93	0.0001	No Relaxation	N.D.
39	Mineral Oil	mg/Lit	15 3025 (part-39) : 1991, RA 2003	0.5	No Relexation	N.D.
40	Oil & Grease	mg/Lit	IS 3025 (Part 39):1991, RA 2003	-	-	N.D.
4icro	biological Analysis		0.000			
1	Total Coliforms	MPN/ 100 ML	I5:1622:1981: RA:2019	Shall not be de 100 ml	tectable in any sample	Absent
2	Faecal coliform	MPN/ 100ml	IS:1622:1981: RA:2019		tectable in any sample	Absent
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019		tectable in any	Absent
esti	cides			AUGINI :	sampie	(8)(8)(8)
1	p,p DDT	µg/L	US EPA 508-1995	1	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.



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

REPORT NO. 06050

			TEST REPOR	T		
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS Acceptable	10500:2012 Permissible limit	RESULT
4	p,p DDD	µg/L	US EPA 508-1995		1	N.D.
5	O,p DDD	µg/L	US EPA 508-1995		1	
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	ug/L	US EPA 508-1995		0.04	
10	Alpha-Endosulfan	µg/L	US EPA 508-1995		.4	N.D.
11	Beta-Endosulfan	µg/L	US EPA 508-1995		.4	N.D.
12	Endosulfansulphate	µg/L	US EPA 508-1995		.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	-	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	20		N.D.
21	Atrazine	µg/L	US EPA 532-2000	2		
22	Methyl parathion	µg/L	US EPA 8141A-1994	0.		N.D.
23	Methyl paraxone	pg/L	US EPA 8141A-1994	0.	3	N.D.
24	Malathion	µg/L	US EPA 8141A-1994	19	0	N.D.
25	Malaoxon	pg/L	US EPA 8141A-1994	19		N.D.
26	Aldrin	µg/L	US EPA 508- 1995	0.0		N.D.
27	Dieldrin	µg/L	US EPA 508-1995	0.0		N.D.,

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

REMARKS: RESULTS ARE AS ABOVE

REVIEWED BY

Terms & conditions

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

> Test sample will be retained for 5 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 ENVIROLY.

2 huch

-End of the test report-

For ULTIMATE ENVIROLYPICAL SOLUTIONS

ADTHORIZED SIGNATORY



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

BANKHETA, POST	TRIES LIMITED, 4, COAL MINE,VILLAC -MILUPARA,	3E -	REPORT NO  LAB REF NO  DATE OF SAMPLING  DATE OF RECEIPT  DATE OF REPORT	UES/TR/21-22/0 UES/21-22/W/01 24/01/2022 25/01/2022 02/02/2022	0311
DISTT RAIGARH	(C.G.) 496107.		DATE OF ANALYSIS	START: 25/01/2022	END: 29/01/2022
			SAMPLE DETAILS		
SAMPLE TYPE	GROUND WATER		ORDER /REFERENCE:	N/PO/SRV/2122/004	5, DTD. 24-JULY-2021
CUSINER SAMPLE ID	SAKTA VILLAGE, (DUGNE	(LL)	SAMPLE CONDITION AT RECEIPT	OK	
PACKING OF SAMPLE	F S X I NO. PYC CAW I S X I NO. PYC CAW I S X I NO. GLASS BOTTLE	SEAZUED	SAMPLE COLLECTED BY	CHEMIST	
IS:3025(PART I):1987 RA 2003: APHA 22ND ED. 2012, 1060-B, 1-39			QUANTITY RECEIVED	5 LTR	

	TEST REPORT							
SR.		1000		AS PER IS	10500:2012			
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT		
1	Colour	Hazen	15:3025:(Part-4)	5	15	2.1		
2	Odour	7	IS 3025(part-5)	Agreeable	Agreeable	Agreeable		
3	Taste		IS 3025(part-8)	Agreeable	Agreeable	Agreeable		
4	pH	*	APHA 22 <sup>nd</sup> Ed.2012,4500-H*-B, 4-92	6.5-8.5	NoRelaxatio n	7.53		
5	Turbidity	NTU	APHA 22 <sup>nd</sup> Ed.2012,2130-B,2-13	1	5	2.4		
6	Electrical Conductivity	µS/cm	IS 3025(part-14):1984, RA 2013	=	-	256.4		
7	Residual Chlorine	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-CI-G, 4 - 69	0.2	1	N.D.		
8	Total Solid	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2540- B, 2- 64	-	•	164.0		
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	158.8		
10	Total Suspended Solids	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,2540- D, 2- 66	-	30	5.2		
11	Alkalinity Total (as CaCO <sub>1</sub> )	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	86.0		
12	Total Hardness ( as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,2340-C, 2- 44,45	200	600	104.0		
13	Calcium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500−Ca-B, 3-67	2	-	54.0		
14	Magnesium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84			50.0		
15	Calcium (as Ca)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ca-B, 3-67	75	200	21.6		
16	Magnesium (as Mg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84	30	100	12.1		
17	Chloride (as CI)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-CI-B, 4-72	250	1000	22.9		
18	Sulphate (as SO <sub>4</sub> )	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-SO <sub>4</sub> -E, 4-190	200	400	27.6		
19	Nitrate (as NO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-NO <sub>3</sub> -B, 4-122	45	NoRelaxatio n	0.56		
20	Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P- C,4-153	5	-	N.D.		
21	Sodium (as Na)	mg/Lit	APHA 22nd Ed.2012,3500-Na- B,3-97		-	16.1		



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

			TEST REPORT			
SR.				AS PER IS	10500:2012	Thin
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
22	Potassium (as K)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-K-B, 3-87	100		0.38
23	Boron (as B)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-B-B, 4-25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B,3-18	0.3	NoRelaxatio n	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.12
26	Manganese (as Mn)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3111-B, 3- 18	0.1	0.3	0.09
27	Lead (as Pb)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	0.01	NoRelaxatio n	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 <sup>nt</sup> Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22 <sup>nt</sup> Ed.2012,3111-B, 3- 18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-Cd, 3- 105	0.003	NoRelaxatio n	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3112-B, 3- 23	0.001	NoRelaxatio n	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3- 38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3- 38	0.01	NoRelaxatio n	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxatio n	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,5540-C, 5- 53	0.2	1.0	N.D.
37	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 <sup>nd</sup> 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		2003			
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	tectable in any sample	Absent
Pesti	cides	1 1 2 2 1 1 1		***************************************		
1	p,p DDT	μg/L	US EPA 508-1995	(2)	I.	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	- 01	ı	N.D.
5	O,p DDD	µg/L	US EPA 508-1995		L	N.D.
6	Gamma-HCH (Lindane)	µg/L	US EPA 508-1995		2	N.D.



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

Report No.05993

	TEST REPORT						
				AS PER IS	10500:2012	1007 10	
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT	
7	Alpha-HCH	µg/L	US EPA 508-1995	0.1	01	N.D.	
8	Beta-HCH	µg/L	US EPA 508-1995	0.0	0.04		
9	Delta HCH	µg/L	US EPA 508-1995	0.0	0.04		
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		
15	Chloropyrifos	µg/L	US EPA 8141A-1994	3	30		
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	0	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

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.

REVIEWED BY

For ULTIMATE ENVIROLYTICAL-SOLUTIONS

02 02 AUTHORIZED SIGNATORY

End of the test report-



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

Name & Address Of To. TO, HINDALCO INDUSTR	REPORT NO  CO INDUSTRIES LIMITED, DATE OF SAMPLIN			UES/TR/21-22/06051 UES/21-22/W/010458		
GARE PALMA - IV/5,	MILUPARA	to be decision.	OF RECEIPT	24/01/2	The state of the s	
U/G COAL MINE, VILL BLOCK-TAMNAR,	AGE - MILUPARA,	DATE	OF REPORT	02/02/2	and the same of th	
DISTT RAIGARH (C	.G.) 496107	DATE	OF ANALYSIS	START: 25,	/01/2022	END: 29/01/2022
	DEED MELECULE	SAMPI	E DETAILS			
SAUCLE TYPE	GROUND WATER		окоми /нигининси:		M/PO/SRV/2122/0049, DED. 24-JULY-2021	
CONSIDER ENGIN ID	CIDARPARA VILLAGE (DUON	(449)	SAMPLE CONDITION AT RECEIPT		CIPE	
PACKING OF SAMPLE	3 L X I NO. PVC CAN I L X I NO. PVC CAN I L X I NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY		сион	
SAMPLING PROCEDURE IS: 3025 (PART I): 1987 RA 200. APMA 22ND ED. 2012, 1060-8, 1			QUANTITY RECEIVED		5 ATR	

# REPORT NO. 06051

	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	<1		
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeable		
3	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeable		
4	pH		APHA 23 <sup>rd</sup> Ed.2012,4500-H*-B, 4-92	6.5-8.5	MoRelazati on	7.28		
5	Turbidity	NTU	APHA 22 <sup>AC</sup> Ed.2012,2130-B,2-13	1	5	0.43		
6	Electrical Conductivity	µS/cm	1S 3025(part-14):1984, RA 2013		-	342.0		
7	Residual Chlorine	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-CI-G, 4 - 69	0.2	1	N.D.		
8	Total Solid	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,2540- B, 2- 64			216.0		
9	Total Dissolved Solids	mg/Lit	IS 3025(pert-16):1984, RA 2006	500	2000	212.4		
10	Total Suspended Solids	mg/Lit	APHA 22 <sup>∞</sup> Ed.2012,2540- D, 2- 66	-		3.6 -		
11	Alkalinity Total (as CaCO <sub>1</sub> )	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	62.0		
12	Total Hardness ( as CaCO <sub>3</sub> )	mg/LJt	APHA 22 <sup>rd</sup> Ed 2012,2340-C, 2- 44,45	200	600	98.0		
13	Calcium Hardness (as CaCO3)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ca- B,3-67		-	56.0		
14	Magnesium Hardness (as CaCO3)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg- B,3-84	-	*	42.0		
15	Calcium (as Ca)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-Ca- 8,3-67	75	200	22.4		
16	Magnesium (as Mg)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-Mg-B, 3-84	30	100	10.2		
17	Chloride (as CI)	mg/Lit	APHA 22 <sup>-d</sup> Ed.2012,4500-Ci-B, 4-72	250	1000	21.9		
18	Sulphate (as SO <sub>4</sub> )	mg/Lit	APHA 22 <sup>se</sup> Ed.2012,4500-SO <sub>4</sub> -E, 4-190	200	400	12.4		
19	Nitrate (as NO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-NO <sub>3</sub> - B,4-122	45	NoRelaxati	3.6		



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

			TEST REPORT			
SR.		1		AS PER IS	10500:2012	
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESUL
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	-		10.7
22	Potassium (as K)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-K-B, 3- 87			0.9
23	Boron (as B)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-B-B, 4- 25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B.3-18	0.3	NoRelaxati	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-F-B	1	on 1.5	0.12
26	Manganese (as Mn)	-	8D, 4-84 & 87		1000	
	The state of the s	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3111-B, 3-18	0.1	0.3 NoRelaxati	0.09
27	Lead (as Pb)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3111-B, 3-18	0.01	on	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-Ni, 3- 108	0.02	No Relexation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22™ Ed.2012,3111-B, 3-18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22 <sup>M</sup> Ed.2012,3111-B, 3-1B	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 <sup>st</sup> Ed.2012,3500-Cd, 3- 105	0.003	NoRelaxati	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3112-B, 3-23	0.001	NoRelaxati	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3114-C, 3-38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3114-C, 3-38	0.01	NoRelaxati	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-Cr-B, 3-69	0.05	NoRelaxati	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22™ Ed.2012,5540-C, 5-53	0.2	1.0	N.D.
37	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH)	mg/Lit	APHA 22 <sup>tol</sup> Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 <sup>rd</sup> Ed.2012,6440-6-93	0.0001	NoRelaxati	N.D.
39	Mineral Oil	mg/Lit	15 3025 (part-39) : 1991, RA 2003	0.5	No Relaxation	N.D.
40	Oil & Grease	mg/Lit	IS 3025 (Part 39):1991, RA 2003		METHRACTOR	N.D.
4icro	biological Analysis		2003			Comme
1	Total Coliforms	MPN/ 100 ML	IS:1622:1981: RA:2019	Shall not be o		Absent
2	Faecal coliform	MPN/ 100ml	T5:1622:1981: RA:2019	Shall not be o		Absent
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019	Shall not be d	letectable in	Absent
esti	cides	*************		y 200111	- sample	34,010/1931
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.



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

#### EXPORT NO. 06051

			TEST REPORT			E-1804C
SR.				AS PER IS 1	-massanas	
NO.	PARAMETER	UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT
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	0.4	
11	Beta-Endosulfan	µg/L	US EPA 508-1995	0.4	4	N.D.
12	Endosulfansulphate	µg/L	US EPA 508-1995	0.4	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	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	100		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	3	N.D.
27	Dieldrin	µg/L	US EPA 508-1995	0.0		N.D.

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

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 wiless otherwise agreed with customer.

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

Phude 122 For ULTIMATE ENVIROLYTICAL SQLUTIONS 02 02 22 REVIEWED BY AUTHORIZED SIGNATORY -End of the test report-



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

Name & Address Of the Car TO,	demor		REPORT NO LAB REF NO	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
HINDALCO INDUST	RIES LIMITED,		DATE OF SAMPLING	24/01/2022	
GARE PALMA - IV/	4, COAL MINE, VILLAC	iE-	DATE OF RECEIPT 25/01/2022		
BANKHETA, POST	-MILUPARA,		DATE OF REPORT	02/02/2022	
DISTT RAIGARH	(C.G.) 496107.		DATE OF ANALYSIS	START: 25/01/2022	END: 29/01/2022
SAMPLE TYPE	GROUND WATER		ORDER /REFERENCE:	N/PO/SRV/2122/004	5, DTD. 24-JULY-2021
SAMPLE TYPE	GROUND WATER			N/90/SRV/2122/004	5, DTD. 24-JULY-2021
	BELJOR VILLAGE (DUGWE	LL)	SAMPLE CONDITION AT RECEIPT	CIK	
CUSTMER SAMPLE ID					
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SHALKED	SAMPLE COLLECTED BY	CHEMIST	

TEST REPORT								
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		The same of the same of		
				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** Ed.2012,4500-H*-B, 4-92	6.5-8.5	No Relaxation	7.58		
5	Turbidity	NTU	APHA 22"Ed.2012,2130-B,2-13	1	5	0.42		
6	Electrical Conductivity	µS/cm	IS 3025(part-14):1984, RA 2013	-	-	576.0		
7	Residual Chlorine	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-Cl-G, 4 - 69	0.2	1	N.D.		
8	Total Solid	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,2540- B, 2- 64	25		353.4		
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	348.6		
10	Total Suspended Solids	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,2540- D, 2- 66		•	4.8		
11	Alkalinity Total (as CaCO <sub>1</sub> )	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	166.0		
12	Total Hardness ( as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,2340-C, 2- 44,45	200	600	196.0		
13	Calcium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ca-B, 3-67	6	-	106.0		
14	Magnesium Hardness (as CaCO <sub>3</sub> )	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-Mg-B, 3-84		=	90.0		
15	Calcium (as Ca)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ca-B, 3-67	75	200	42.4		
16	Magnesium (as Mg)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Mg-B, 3-84	30	100	21.8		
17	Chloride (as CI)	mg/Lit	APHA 22 <sup>nt</sup> Ed.2012,4500-CI-B, 4-72	250	1000	46.9		
18	Sulphate (as SO <sub>4</sub> )	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-SO <sub>4</sub> -E, 4-190	200	400	25.2		
19	Nitrate (as NO <sub>3</sub> )	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-NO <sub>3</sub> -B, 4-122	45	No Relaxation	1.32		
20	Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P- C,4-153			N.D.		



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

			TEST REPORT			
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		Total Table
				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 <sup>rd</sup> Ed.2012,3500-K-B, 3-87		-	1.34
23	Boron (as B)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,4500-8-8, 4-25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B,3-18	0.3	No Relaxation	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.09
26	Manganese (as Mn)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	0.1	0.3	0.12
27	Lead (as Pb)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3111-B, 3- 18	0.01	No Relaxation	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Ni, 3- 108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3500-Cd, 3- 105	0.003	No Relaxation	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3112-B, 3- 23	0.001	No Relaxation	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3114-C, 3- 38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22 <sup>rd</sup> Ed.2012,3114-C, 3- 38	0.01	No Relaxation	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,3500-Cr-B, 3-69	0.05	No Relaxation	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,5540-C, 5- 53	0.2	1.0	N.D.
37	Phenolic Compound (as C <sub>6</sub> H <sub>5</sub> OH)	mg/Lit	APHA 22 <sup>nd</sup> Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	μg/Lit	APHA 22 <sup>nd</sup> 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	biological Analysis		1 8898			
1	Total Coliforms	MPN/ 100 ML	IS:1622:1981: RA:2019	Shall not be detectable in any 100 ml sample		Absent
2	Faecal Coliform	MPN/ 100ml	IS:1622:1981: RA:2019	Shall not be detectable in any 100 ml sample		Absent
3	E. Coli	MPN/ 100ml	IS:1622:1981:RA:2019	Shall not be detectable in any 100 ml sample		Absent
Pesti	cides	2001111		uni 2001	statingrie	
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.



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

Report No.05994

	TEST REPORT								
SR.			History and the second has	AS PER IS	10500:2012				
NO. PARAMETER		UNIT	METHOD OF TEST	Acceptable Limit	Permissible limit	RESULT			
6	Gamma-HCH (Lindane)	μg/L	US EPA 508-1995	US EPA 508-1995 2		N.D.			
7	Alpha-HCH	μg/L	US EPA 508-1995	0.	0.01				
8	Beta-HCH	µg/L	US EPA 508-1995	0.	0.04				
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.			
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.	0.3				
23	Methyl paraxone	µg/L	US EPA 8141A-1994			N.D.			
24	Malathion	µg/L	US EPA 8141A-1994	15	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.

REVIEWED BY

End of the test report-

For ULTIMATE ENVIROLYTICAL SOLUTIONS

02 02 AUTHORIZED SIGNATORY

# Annexure-7



Letter No.: HIL/EC/GP-IV/4 -Q3/2021-22/ 499

11 January, 2022

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. xxxv of Environment Clearance Letter no. – No. J-11015/183/2010-IA.II (M) dated 12 March, 2013.

Ref.: Environment Clearance Letter no. – No. J-11015/183/2010-IA.II (M) dated 12 March, 2013.

### Dear Sir,

With reference to above subject, we are submitting herewith the quarterly monitoring report of Ground Water Level (from Oct. 2021 to December 2021) & GW Quality for the month of November 2021 – Post monsoon period of Gare Palma IV/4 Coal Mine, M/s Hindalco Industries Limited, Village – Bhanjikhol, Tehsil – Tamnar, District – Raigarh, Chhattisgarh.

Thanking you,

Yours faithfully,

Govind Rumar (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

### Hindalco Industries Limited



Letter No.: HIL/EC/GP-IV/4 -Q4/2021-22/23

07<sup>TH</sup> April, 2022

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. xxxv of Environment Clearance Letter no. - No. J-11015/183/2010-IA.II (M) dated 12 March, 2013.

Ref.: Environment Clearance Letter no. - No. J-11015/183/2010-IA.II (M) dated 12 March, 2013.

### Dear Sir,

With reference to above subject, we are submitting herewith the quarterly monitoring report of Ground Water Level (from Jan. 2022 to Mar. 2022) & GW Quality for the month of January 2022 – Winter Season of Gare Palma IV/4 Coal Mine, M/s Hindalco Industries Limited, Village – Bhanjikhol, 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

### Hindalco industries Limited



# Annexure-8



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

Name & Address Of The Contener	REFORT NO.	REPORT NO.		UES/TR/21-22/3494			
то,	LAB REF NO.		UES/21-22/AAQM/6246-6253				
HINDALCO INDUSTRIE		DATE OF SAM	PLING	01/10/2021 to	25/	10/2021	
GARE PALMA - IV/4, COAL MINE, VILLAGE - BANKHETA, POST - MILUPARA, DISTT RAIGARH (C.G.) 496107		DATE OF REPORT  DATE OF ANALYSIS		02/10/2021 to 26/10/2021			
				01/11/2021 START: 03/10/2021 END: 01/11/			
						END: 01/11/2021	
	*	SAMPLE DETAI	LS				
MONITORING FOR	AMBIENT AIR QUAL	ITY MONITORING	CUSTOMER REF. NO. 4 DATE		N/PO/SRV/2122/8045 DTD.:24-JULY-2021		
SAMPLING LOCATION	OFFICE AREA, BAN	UTKHOL		10			
DURATION OF SAMPLING	24 HOURS	SAMPLE COLL	SCTED BY	LANGRATORY CHEMIST			
SAMPLING PROCEDURE	AS PER METHOD RE	DESCRIPTION		***			
SAMPLE QUANTITY/PACKING	SOp: 30MLXI NO. 1	FILTER PAPER (FM <sub>10</sub> ): 1K1 NO., FILTER PAPER (FM <sub>2.5</sub> ): 1K1 NO. SO <sub>2</sub> : 30MLKI NO. PVC BOTTLE, NO <sub>2</sub> : 30MLKI NO. PVC BOTTLE RUBBER BLADDER: 1K1 NO.					

Test Method and NAAQM Standard for Ambient Air Quality Monitoring					
Parameter	Method Reference	NAAQM Standard			
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100			
Particulate Matter size less than 2.5 microns (PM <sub>2.5</sub> )	CPCBGuidelines Vol1	60			
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80			
Nitrogen Dioxide (NO <sub>2</sub> )	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-05	24			

TEST REPORT							
Date of Sampling	PM <sub>10</sub> μg /m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m <sup>2</sup>	
01,10,2021	54	22	12	28	0.8	N.D.	
04,10,2021	50	28	09	20	0.9	N.D.	
08.10.2021	48	26	18	26	0.4	N.D.	
11.10.2021	40	20	14	20	0.6	N.D.	
14.10.2021	44	24	10	28	0.2	N.D.	
18.10.2021	4.0	28	16	24	0.8	N.D.	
22.10.2021	48	20	10	26	0.5	N.D.	
25.10.2021	52	22	18	22	0.9	N.D.	

### Terms & conditions

- The report for publication, arbitration or as legal dispute is forbidden.
- . Test sample will be returned for ES days after insue of test report widox atherwise agreed with surio

For ULTIMATE ENVIROLYTICAL SOLUTIONS REVIEWED BY 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,		REPORT NO		UES/TR/21-22/04167		
		LAB REF	LAB REF NO		UES/21-22/AAQM/07453-07460	
HINDALCO INDUST		DATE OF	SAMPLING	01/11/2021	to 27	/11/2021
GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107		DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS		02/11/2021 to 29/11/2021		
				01/12/2021 START: 02/11/2021 END: 29/11/20.		
						END: 29/11/202
		SAMPLE I	DETAILS			MILE STREET
MONITORING FOR	AMBIENT AIR QUALITY	MONITORING	CUSTOMER REF. NO. 6 DATE		N/PO/SRV/2122/0045, DTD. 24-JULY-2021	
SAMPLING LOCATION	OFFICE AREA, BANJING	IOL .				
DURATION OF SAMPLING	24 NOURS	SAMPLE	COLLECTED BY	LABORATORY CE	тыля	
SAMPLING PROCEDURE	AS PER METHOD REFERE	INCE				
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM;s): SO:: 30MLX1 NO. PVC: RUBBER BLADDER: 1X1	BOTTLE, NO: 3				

Parameter	Method Reference	NAAQM Standard
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100
Particulate Matter size less than 2.5 microns (PM <sub>2.5</sub> )	CPCBGuidelines VolI	60
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, PA 2006 & CPCB Guidelines VolI	80
Nitrogen Dioxide (ND <sub>2</sub> )	IS 5182 (Part 6): 2006 a CPCB Guidelines Vol1	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 <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m³		
01.11.2021	56	24	14	30	0.9	N.D.		
06.11.2021	52	30	10	22	0.8	N.D.		
08.11.2021	50	28	20	28	0.5	N.D.		
13.11.2021	42	22	16	22	0.8	N.D.		
15.11.2021	46	26	12	30	0.4	N.D.		
20.11.2021	42	30	18	26	0.6	N.D.		
22.11.2021	50	22	12	28	0.4	N.D.		
27.11.2021	54	24	20	24	0.8	N.D.		

Duration of sampling for CO - 1 Hour, N.D. - Not Detected

Terms & conditions

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

01/12/21 AUTHORIZED SIGNATORY

-End of the test report-



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

TO, HINDALCO INDUSTRIES LIMITED,		REPORT NO		UES/TR/21-22/04910		
		LAS REF	LAB REF NO		UES/21-22/AAQM/08721-08728	
		DATE OF	SAMPLING	04/12/2021	to 27	7/12/2021
GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107		DATE OF REPORT  DATE OF ANALYSIS		05/12/2021 to 28/12/2021 01/01/2022		
						SAMPLE I
MONITORING FOR	AMBIENT AIR QUALITY	MONITORING	CUSTOMER REF. NO. & DATE		W/PO/SRV/2122/0045, DTD. 24-JULY-2021	
SAMPLING LOCATION	OFFICE AREA, BANJIKH	OZ.			Dan.	24-0001-2022
DURATION OF SAMPLING	24 MOURS	SAMPLE (	COLLECTED BY	LABORATORY CT	IIMIST	
SAMPLING PROCEDURE	AS PER METHOD REFERE	NCE		I a second second		
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM <sub>IA</sub> ): SO <sub>2</sub> : 30MLX1 NO. PVC 1 RUBBER BLADOER: 1X1	SOTTLE, NO: 30	OR PAPER (PM) OMLKI NO. PVC	s): IX1 NO. BOTTLE		

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

TEST REPORT								
Date of Sampling	PM <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m³		
04.12.2021	58	26	16	32	1.0	N.D.		
06.12.2021	54	32	12	24	0.9	N.D.		
11.12.2021	52	30	22	30	0.6	N.D.		
13,12,2021	4.4	24	18	24	0.9	N.D.		
18.12.2021	48	28	14	32	0.6	N.D.		
20.12.2021	44	32	20	28	0.8	N.D.		
25.12.2021	52	24	14	30	0.6			
27.12.2021	56	26	22	26	1.0	N.D.		

Terms & conditions

The report for publication, aethorogous or on legal stepule in fortuness.

Post someth will be retained for 15 maps once to make report senses observes agreed with contains.
 This of the information on the party law points for place (solid agree).

REVIEWED BY

A STATE OF THE STA

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 2 Address Of The Costomer		REPORT NO		UES/TR/21-22/05971 UES/21-22/AAQM/010260-010267		
TO,						
HINDALCO INDUST	DATE OF	SAMPLING	03/01/2022	to 28	/01/2022	
GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107		DATE OF REPORT  DATE OF ANALYSIS		04/01/2022 to 29/01/2022 02/02/2022		
						SAMPLE I
MONITORING FOR	AMBIENT AIR QUALITY	MONITORING	CUSTOMER REF. NO. 6 DATE		W/PO/SRV/2122/0045, DTD. 24-JULY-2021	
SAMPLING LOCATION	OFFICE AREA, BANJIKE	OL			-	To the second se
DURATION OF SAMPLING	24 HOURS	SAMPLE (	COLLECTED BY	LABORATORY CE	OMIST	6)
SAMPLING PROCEDURE	AS PER METHOD REFEREN	NCE				
SAMPLE QUANTITY/FACKING	FILTER PAPER (PM;s): SO2: 30MLX1 NO. PVC N RUBBER BLANDER: 1X1 I	OTTLE, NO: 30	ER PAPER (PM <sub>2</sub> . OMLX1 NO. PVC	s): 1X1 NO. BOTTLE		

Parameter	Method Reference	NAAQM Standard
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100
Particulate Matter size less than 2.5 microns (PM <sub>3.5</sub> )	CPCBGuidelines VolI	60
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80
Nitrogen Dioxide (NO <sub>2</sub> )	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	- 111

TEST REPORT								
Date of Sampling	PM <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> μg/m³	CO* mg/m³	Hg ng/m³		
03.01.2022	64	30	18	30	0.6	N.D.		
07.01.2022	60	24	10	26	0.8	N.D.		
10.01.2022	62	28	14	32	0.7	N.D.		
14.01.2022	54	26	0.8	28	0.2	N.D.		
17.01.2022	58	20	14	22	0.6	N.D.		
21.01.2022	54	38	10	26	0.5	N.D.		
24.01.2022	62	26	14	20	0.8	N.D.		
28.01.2022	66	22	12	24	1.1	N.D.		

Terms & conditions

REVIEWED BY

The report for publication, withtration or as legal allower in trobables

The repeat for publication, artification or as legal dispute to fortingless.

For anytic will be relative for AE days after incore of test report unless attenuous against with european.

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 Contemer TO,		REPORT	REPORT NO		UES/TR/21-22/07918			
		LAB REE	F NO	UES/21-22/AAQM/013075-013082				
	HINDALCO INDUSTRIES LIMITED,		* SAMPLING	01/02/2022	to 25	/02/2022		
GARE PALMA - IV/4, COAL MINE, VILLAGE - BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107		ZATE OF	RECEIPT	02/02/2022	to 26	/02/2022		
		DATE OF	REPORT	01/03/2022				
		DATE OF ANALYSIS		START: 03/02/2022		END: 01/03/2022		
		SAMPLE I	DETAILS	VIII - III - III				
MONITORING FOR	AMBIENT AIR QUALITY	MONITORING	CUSTOMER REF. NO. 4 DATE			/SRV/2122/0045, 24-JULY-2021		
SAMPLING LOCATION	OFFICE AREA, BANJIKH	or				24-0001-2021		
DURATION OF SAMPLING	24 HOURS	SAMPLE	COLLECTED BY	LABORATORY CHEMIST				
SAMPLING PROCEDURE	AS PER METHOD REFERE	NCE			-			
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM;s): SO: JOMLKI NO. PVC I RUBBER BLADDER: 1X1	BOTTLE, NO2: 3	ER PAPER (PM). OMLX1 NO. PVC	): 1X1 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:0)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100				
Particulate Matter size less than 2.5 microns (PM2.3)	IS 5182 (Part 24): 2019 CPCBGuidelines VolI	60				
Sulphur Dioxide (SO2)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80				
Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 (Part 6): 2006 & EPCB 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 <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> μg/m <sup>3</sup>	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m <sup>3</sup>		
01.02.2022	68	32	14	32	0.6	N.D.		
04.02.2022	58	20	08	28	0.9	N.D.		
07.02.2022	70	30	12	30	0.4	N.D.		
11.02.2022	62	22	08	26	0.8	N.D.		
14.02.2022	68	28	16	20	0.6	N.D.		
18.02.2022	58	36	12	28	0.4	N.D.		
21.02.2022 .	65	24	18	23	0.9	N.D.		
25.02.2022	62	28	14	28	1.0	N.D.		

Terms & conditions

FOULTIMATE ENVIROLYTICAL SOLUTIONS

01 03 AUTHORIZED SIGNATORY

REVIEWED BY



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

TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107		REPORT	NO	UES/TR/21-22/08926 UES/21-22/AAQM/014619			
		LAB REF	NO NO				
		DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS		02/03/2022 to 28/03/2022 03/03/2022 to 29/03/2022			
				START: 04/03/2022		END: 02/04/2022	
						SAMPLE I	DETAILS
MONITORING FOR	AMBIENT AIR QUALITY	MONITORING	CUSTOMER R	EF. NO. & DATE		/SRV/2122/0045, 24-JULY-2021	
SAMPLING LOCATION	OFFICE AREA, BANJINS	OL	reduce a second				
DURATION OF SAMPLING	24 HOURS	SAMPLE	COLLECTED BY	LABORATORY CE	EMIST		
SAMPLING PROCEDURE	AS PER METHOD REFERE	NCE			-		
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM <sub>10</sub> ): SO <sub>2</sub> : 30MLX1 NO. PVC I RUBBER BLADDER: 1X1	SOTTLE, NO.: 3					

Test Method and NAAQM Standard for Ambient Air Quality Monitoring						
Parameter	Method Reference	NAAQM Standard				
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100				
Particulate Matter size less than 2.5 microns (PM2.5)	IS 5182 (Part 24): 2019, CPCB Guidelines VolI	60				
Sulphur Dioxide (SO <sub>2</sub> )	18 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80				
Nitrogen Dioxide (NO <sub>2</sub> )	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	0.0				

TEST REPORT								
Date of Sampling	PM <sub>10</sub> µg/m³	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m³		
02.03.2022	78	30	12	30	0.8	N.D.		
07.03.2022	68	26	10	28	0.6	N.D.		
11.03.2022	80	28	14	24	0.8	N.D.		
14.03.2022	72	30	0.6	22	0.5	N.D.		
18.03.2022	78	34	10	24	0.6	N.D.		
21.03.2022	68	32	08	28	0.2	N.D.		
25.03.2022	55	28	14	20	0.8	N.D.		
28.03.2022	62	20	12	22	0.5	N.D.		

### Terms & conditions

You report for pophlication, arbitration or as logal disprise to forbustion.

Text sample will be retained for ES object after truce of rest report unless ochonics agreed with consoner.

This is the information as the purity his asked for where insign ands.

Parent Pa

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-----End of the test report-



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

TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE,VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107		REPORT NO. UES		UES/	JES/TR/21-22/3495			
		LAB REF	NO.	UES/21-22/AAQM/6254-6261				
		DATE OF	DATE OF SAMPLING		01/10/2021 to 25/10/2021			
		DATE OF REPORT DATE OF ANALYSIS		02/10/2021 to 26/10/2021				
				01/11/2021 START:03/10/2021 END:01/1				
						END: 01/11/2021		
	SAI	MPLE DETA	ILS	En				
MONITORING FOR	AMBIENT AIR QUALITY MC	NITORING	CUSTOMER REF	, NO.	& DATE	N/PO/SRV/212 DTD.: 24-JULY		
SAMPLING LOCATION	ETP AREA, BANJIKNOL							
DURATION OF SAMPLING	24 HOURS	MOURS SAMPLE COLLECTED BY L			LABORATORY CHEMIST			
SAMPLING PROCEDURE	AS PER METHOD REFERENCE	E						
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM <sub>10</sub> ): 1X SO <sub>2</sub> : 30MLX1 NO. PVC BO: RUBBER BLADDER: 1X1 NO	TTLE, NO:						

Test Method and NAAQM Standard for Ambient Air Quality Monitoring						
Parameter	Method Reference	NAAQM Standard				
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines Vol1	100				
Particulate Matter size less than 2.5 microns (PM <sub>2.3</sub> )	CPCBGuidelines VolI	60				
Sulphur Dioxide (SO <sub>3</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80				
Nitrogen Dioxide (NO <sub>2</sub> )	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 10-05					

TEST REPORT								
Date of Sampling	PM <sub>10</sub> μg /m³	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m³		
01.10.2021	48	22	08	26	0.7	N.D.		
04.10.2021	40	26	12	22	0.4	N.D.		
08.10.2021	46	22	16	28	0.8	N.D.		
11.10.2021	38	28	10	20	0.6	N.D.		
14.10.2021	36	20	08	26	0.2	N.D.		
18,10,2021	42	26	12	28	0.7	N.D.		
22.10.2021	46	28	09	20	0.6	N.D.		
25.10.2021	40	20	14	24	0.2	N.D.		

### Terms & conditions

- » The report for publication, arbitration or as legal dispute is forbidden.
- Seat sample will be retrined for 15 days after assure of test report solless otherwise agreed with customes:

This is for information as the party has asked for above models and value of the column of the colum

REVIEWED BY

-End of the test report--

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY



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

TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107		REPORT NO  LAB REF NO  DATE OF SAMPLING  DATE OF RECEIPT  DATE OF REPORT  DATE OF ANALYSIS		UES/TR/21-22/04168  UES/21-22/AAQM/07461-07468  01/11/2021 to 27/11/2021  02/11/2021 to 29/11/2021  01/12/2021  START:02/11/2021 END:29/11/202			
		MPLE	DETAILS				
HONITORING FOR	AMBIENT AIR QUALITY MONITOR	ING	CUSTOMER REF. NO. 4 DATE			N/PO/SRV/2122/0045, DTD: 24-JULY-2021	
SAMPLING LOCATION	ETF AREA, BANJIKHOL	111				2022	74-00F1-5051
DURATION OF SAMPLING	24 HOURS	SAN	PLE COLLECTED E	3¥	LABORATO	RY CH	MIST
SAMPLING PROCEDURE	AS PER METHOD REFERENCE				- Inches	Salares	
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM:e): 1XI NO. SO;: 30MLX1 NO. PVC BOTTLE, RUBBER BLADDER: 1X1 NO.	, FIL NO2:	TER PAPER (PM; 3 30MLX1 NO. PVC	): 1. BOTT	KI NO. LE		

Parameter	Method Reference	NAAQM Standard	
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100	
Particulate Matter size less than 2.5 microns (PM <sub>2.5</sub> )	CPCBGuidelines Vol1	60	
Sulphur Dioxide (50 <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines Vol1	80	
Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80	
Carbon Monoxide (CO)* Mercury (Hg)	IS 5182(Part 10):1999, RA 2003	4.0	
corrently tudy	EPA Method IO-5		

TEST REPORT										
Date of Sampling	PM <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m³				
01.11.2021	50	24	10	28	0.8	N.D.				
06.11.2021	42	28	14	24	0.2	N.D.				
08.11.2021	48	24	18	26	0.6	****				
13.11.2021	40	30	12	22	0.8	N.D.				
15.11.2021	38	22	10	28	0.4	177111111				
20.11.2021	44	28	14	30	A Company of the Company	N.D.				
22.11.2021	46	30	10		0.6	N.D.				
27.11.2021	42			22	0.8	N.D.				
emarks: * Durat		22	16	26	0.4	N.D.				

### Terms & conditions

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

12 21

End of the test report-



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

TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107		DAS	PORT NO B REF NO TE OF SAMPLING TE OF RECEIPT TE OF REPORT TE OF ANALYSIS	UES 04/ 05/ 01/	8/TR/21-22, 8/21-22/AA /12/2021 to /12/2021 to /01/2022 RT:05/12/20	QM/0 27 28	08729-08736 7/12/2021
	A STATE OF THE PARTY OF THE PAR	SAMPLE	DETAILS				
MONITORING FOR	AMBIENT AIR QUALITY MONIT	TORING	CUSTOMER REF.	no.	e DATE		O/SRV/2122/0045, . 24-JULY-2021
SAMPLING LOCATION	ETP AREA, BANJINHOL					DID	. 24-5011-2021
DURATION OF SAMPLING	24 HOURS	SAN	PLE COLLECTED E	Y.	LABORATORY	СН	MIST
SAMPLING PROCEDURE	AS PER METHOD REFERENCE			, 5	-91000000000000000000000000000000000000	-550	-103 A.
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM:0): 1X1   SO2: 30MLX1 NO. PVC BOTTLE RUBBER BLADDER: 1X1 NO.	90., FIL E, NO <sub>2</sub> :	TER PAPER (PM). 30MLX1 NO. PVC	): IX BOTTL	I MO.		

Parameter	Method Reference	NAAQM Standard
Particulate Matter size less than 10 mlcrons (FM <sub>18</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100
Particulate Matter size less than 2.5 microns (PM <sub>2.5</sub> )	CPCB Guidelines VolI	60
Sulphur Dioxide (SO2)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80
Nitrogen Dioxide (NO <sub>2</sub> )	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 <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> μg/m³	CO* mg/m³	Hg ng/m³				
04.12.2021	52	26	12	30	0.9	N.D.				
06.12.2021	44	30	16	26	0.4	N.D.				
11.12.2021	50	26	20	28	0.8	N.D.				
13,12,2021	42	32	14	24	0.9	N.D.				
18.12.2021	40	24	12	26	0.6					
20.12.2021	46	30	16	32	0.8	N.D.				
25.12.2021	48	32	12	24	The state of the s	N.D.				
27.12.2021	44	24	18	28	0.9	N.D.				

### Terms & conditions

REVIEWED BY

The regard for production, attending or as Popul objects or forcesses.

Text sample and he calmined for iff along after issues of tool report persons of buriagins agreed with contamina. This is for externation on the contamination of the contaminati

Zhioff22

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 Continuer  TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA,		DA:	REPORT NO		28 29	/010268-010275 28/01/2022 29/01/2022		
DISTT RAIGARH			DETAILS	STAR	RT: 04/01/202	22	END: 01/02/2022	
MONITORING FOR	AMBIENT AIR QUALITY MONT		CUSTOMER REF.	NO.			0/SRV/2122/0045, 24-JULY-2021	+1
SAMPLING LOCATION	ETP AREA, BANJIKHOL							
DURATION OF SAMPLING	24 HOURS	SAN	PLE COLLECTED E	ay .	LABORATORY	CHE	MIST	_
SAMPLING PROCEDURE	AS PER METHOD REFERENCE					-	Total Control	
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM <sub>20</sub> ); 1X1 I SO <sub>2</sub> : 30MLXI NO. PVC BOTTL RUBBER BLADDER; 1X1 NO.							

Test Method and NAAQM Standard for Ambient Air Quality Monitoring								
Parameter	Parameter Method Reference							
Particulate Matter size less than 10 microns (FM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	Standard 100						
Particulate Matter size less than 2.5 microns (PM <sub>2.5</sub> )	CPCBGuidelines VolI	60						
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 a CPCB Guidelines VolI	BO						
Nitrogen Dioxide (NO <sub>3</sub> )	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 <sub>10</sub> μg/m <sup>3</sup>	РМ <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m <sup>3</sup>				
03.01.2022	58	28	16	24	0.7	N.D.				
07.01,2022	48	32	14	22	0.8	N.D.				
10.01.2022	56	26	1.0	20	0.5	N.D.				
14.01.2022	48	30	18	28	0.4	N.D.				
17.01.2022	50	28	12	24	0.9	N.D.				
21.01.2022	-54	32	14	30	0.7	N.D.				
24.01.2022	46	30	10	26	0.5	N.D.				
28.01.2022	58	28	16	22	0.7	N.D.				

Terms & conditions

-End of the test report-

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY



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

TO,  HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107		LAB REF NO		UE	19 13083-13090		
		DA	DATE OF SAMPLING	1	/02/2022 to	Acres 1	
				02/02/2022 to 26/02/2022			
				01/03/2022			
		DATE OF ANALYSIS START			NRT: 03/02/20	22	END: 01/03/2022
		SAMPLE	DETAILS				
MONITORING FOR	AMBIENT AIR QUALITY MONI	TORING	CUSTOMER REF.	NO.			O/SRV/2122/0045, . 24-JULY-2021
SAMPLING LOCATION	ETP AREA, BANJIKHOL						
DURATION OF SAMPLING	24 HOURS	SAN	THE COLLECTED I	9Y	LABORATORY	CHI	Deist
SAMPLING PROCEDURE	AS PER METHOD REFERENCE						
SAMPLE QUANTITY/PACKING	FILTER PAPER (FM <sub>10</sub> ): 1X1 SO <sub>2</sub> : 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 <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100					
Particulate Matter size less than 2.5 microns (PM2.5)	IS 5182 (Part 24): 2019 CPCB Guidelines VolI	60					
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80					
Nitrogen Dioxide (NO <sub>2</sub> )	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 <sub>10</sub> µg/m <sup>3</sup>	РМ <sub>2.5</sub> µg/m <sup>3</sup>	50 <sub>2</sub> μg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO* mg/m³	Hg ng/m³				
01.02.2022	64	24	10	28	0.6	N.D.				
04.02.2022	58	30	18	24	0.2	N.D.				
07.02.2022	50	22	12	18	0.8	N.D.				
11.02.2022	42	26	16	26	0.4	N.D.				
14.02.2022	62	32	10	20	0.8	N.D.				
18.02.2022	58	28	18	28	0.2	N.D.				
21.02.2022	40	20	16	24	0.6	N.D.				
25.02.2022	56	30	12	26	0.8	N.D.				

### Terms & conditions

The report for publication, artistration or an legal dispute in federates.

Test hample reli by reticined for 10 days after accur of not report action witherwise agreed with contact.

Title in far extension as the perty feet above ready) only.

REVIEWED BY

FOULTIMATE ENVIROLYTICAL SOLUTIONS-

-End of the test report-



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

TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107		DAT	ORT NO REF NO E OF SAMPLING E OF RECEIPT E OF REPORT E OF ANALYSIS	02 03 02	S/TR/21-22/AJ S/21-22/AJ 2/03/2022 1 2/03/2022 1 2/04/2022 ART: 04/03/2	AQM/0 to 28	014620 8/03/2022
	S.	AMPLE	DETAILS		HE WILL		
MONITORING FOR	AMBIENT AIR QUALITY MONITO	RING	CUSTOMER REF.	NO.	& DATE		O/SRV/2122/0045, 24-JULY-2021
SAMPLING LOCATION	ETP AREA, BANJINHOL					*	
DURATION OF SAMPLING	24 HOURS	SAM	PLE COLLECTED E	3Y	LABORATOR	Y CH	EMIST
SAMPLING PROCEDURE	AS PER METHOD REFERENCE						
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM:s): IXI BE SO: 30MLX1 NO. PVC BOTTLE RUBBER BLADDER: IXI NO.						

Parameter	Method Reference	NAAQM Standard
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100
Particulate Matter size less than 2.5 microns (PM2.5)	IS 5182 (Part 24): 2019 CPCB Guidelines VolI	60
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80
Nitrogen Dioxide (NO <sub>2</sub> )	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	2.0

TEST REPORT								
Date of Sampling	PM <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> μg/m³	CO* mg/m³	Hg ng/m <sup>3</sup>		
02.03.2022	70	28	14	24	0.5	N.D.		
07.03.2022	64	36	12	28	0.9	N.D.		
11.03.2022	60	30	18	20	0.2	N.D.		
14.03.2022	58	28	12	28	0.8	N.D.		
18.03.2022	70	38	10	20	0.4	N.D.		
21.03.2022	66	34	14	24	0.6	N.D.		
25,03,2022	58	26	18	22	0.2	N.D.		
28.03.2022	62	32	16	28	0.8	N.D.		

### Terms & conditions

- You report the publication, artistication or as tigal objects is decreated
- First sample will be retained for 15 days after tisser of test report orders otherwise agreed with consistent

This is for automorphise or the purity hav asked for above serial exig.

PEVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

---End of the test report--



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

TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE,VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107		REPORT NO.		UES/TR/21-22/3496			
		LAB REF NO.		UES/21-22/AAQM/	6262-6269		
		DATE OF SAMPL	ING	01/10/2021 to 2	5/10/2021		
		DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS		02/10/2021 to 26/10/2021			
				01/11/2021			
				START: 03/10/2021	END: 01/11/2021		
	SZ	AMPLE DETAIL	S	for a property of			
MONITORING FOR	AMBIENT AIR QUALITY N	CNITORING	CUSTOM	R REF. NO. &	N/PO/SRV/2122/0045, DTD.:24-JULY-2021		
SAMPLING LOCATION	OFFICE AREA, BANGMETA	k.	410000				
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLEC	TED BY	LABORATORY CHEMIS	FT		
SAMPLING PROCEDURE	AS PER METHOD REFEREN	rce					
SAMPLE QUANTITY/PACKING	SO2: 30MLX1 NO. PVC B	FILTER PAPER (PM <sub>10</sub> ): IXI NO., FILTER PAPER (PM <sub>2.3</sub> ): IXI NO. SO <sub>2</sub> : 30MLXI NO. PVC BOTTLE, NO <sub>2</sub> : 30MLXI 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 <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100			
Particulate Matter size less than 2.5 microns (PM <sub>3.5</sub> )	CPCBGuidelines VolI	60			
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80			
Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 (Part 6): 2006 & CPC8 Guidelines VolI	80			
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0			
Mercury (Hg)	EPA Method IO-05				

TEST REPORT								
Date of Sampling	PM <sub>10</sub> μg /m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> μg/m <sup>3</sup>	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m³		
01.10.2021	52	28	10	20	0.7	N.D.		
04.10.2021	60	20	16	26	0.9	N.D.		
08.10.2021	48	22	10	22	0.2	N.D.		
11.10.2021	54	26	18	27	0.5	N.D.		
14.10.2021	46	28	12	28	0.7	N.D.		
18.10.2021	42	24	10	20	0.8	N.D.		
22.10.2021	48	30	14	26	0.4	N.D.		
25.10.2021	56	28	12	28	0.9	N.D.		

### Terms & conditions

- The report for publication, arbitration or as legal dispute is feelicides.
- Feat sample will be retained for 13 days after issue of test report uniess attacking agreed with customer.

For ULTIMATE ENVIROLYTICAL SOLUTIONS

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY



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

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

REPORT NO	UES/TR/21-22/041	69	_
LAB REF NO	UES/21-22/AAQM/0	7469-07476	
DATE OF SAMPLING	01/11/2021 to 27	/11/2021	
DATE OF RECEIPT	02/11/2021 to 29	/11/2021	
DATE OF REPORT	01/12/2021		
DATE OF ANALYSIS	START: 02/11/2021	END: 29/11/2021	

		SAMPLE I	DETAILS		
MONITORING FOR	AMBIENT AIR QUALITY	MONITORING	CUSTOMER 1	RF. NO. & DATE	N/PO/SRV/2122/0045, DTD, 24-JULY-2021
SAMPLING LOCATION	OFFICE AREA, BANKHET	SA .			
DURATION OF SAMPLING	24 HOURS	SAMPLE (	COLLECTED BY	MIST	
SAMPLING PROCEDURE	AS PER METHOD REFERE	INCR:			
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM;s): SO: 30MLX1 NO. PVC 1 RUBBER BLADDER: 1X1	BOTTLE, NO: 30	ONLKI NO. PVC	): 1X1 NO. BOTTLE	

Parameter	Method Reference	NAAQM	
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	Standard 100	
Particulate Matter size less than 2.5 microns (PM2.5)	CPCBGuidelines VolI	60	
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80	
Nitrogen Dioxide (NO <sub>2</sub> )	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	РМ <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m³		
01.11.2021	54	30	12	22	0.8	N.D.		
06.11.2021	62	22	18	28	0.6			
08.11.2021	5.0	24	12	24		N.D.		
13.11.2021	56	28	20		0.4	N.D.		
15.11.2021	48			28	0.6	N.D.		
20.11.2021		26	14	26	0.8	N.D.		
	44	22	12	22	0.6	N.D.		
22.11.2021	46	28	16	28	0.2	N.D.		
27.11.2021	58	30	14	26	0.8	N.D.		

Terms & conditions

The report to problembers, or privation or on tegor (respects in transmiss)

That manages will be expansed for 15 days office sense of heat report across interport with exceptions.

2 Oulli2121 REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report-



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

TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107		REPORT NO		UES/TR/21-22/04912			
		LAB REF )	80°	UES/21-22/AAQM/08737-08744			
		DATE OF S	SAMPLING	04/12/2021 to	27/	12/2021	
		DATE OF REPORT DATE OF ANALYSIS		05/12/2021 to	28/	12/2021	
				01/01/2022 START: 05/12/2021 END: 30/12/2			
						KND:30/12/2021	
		SAMPLE DE	TAILS				
HOMITORING FOR	AMBIENT AIR QUALITY	MONITORING	CUSTOMER F	REF. NO. & DATE		0/SRV/2122/0045, 24-JULY-2021	
SAMPLING LOCATION	OFFICE AREA, BANKHET	٨					
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY		LABORATORY CHEMIST			
SAMPLING PROCEDURE	AS PER METHOD REFEREN	NCE	TO 2000 ACHIEVED IN	TV WINDS			
SAMPLE QUANTITY/PACKING		FILTER PAPER (PM;a): IXI NO., FILTER PAPER (PM;s): IXI NO. SO;: JOMEXI NO. PVC BOTTLE, NO;: JOHLKI NO. PVC BOTTLE SUPPERP BLAUDER: IXI NO.					

Test Method and NAAQM Standard for Ambient Air Quality Monitoring						
Parameter	Method Reference	NAAQM Standard				
Particulate Matter size less then 10 microns (PM <sub>18</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100				
Particulate Matter size less than 2.5 microns (FM2.6)	CPCB Guidelines VolI	60				
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80				
Nitrogen Dioxide (NO <sub>2</sub> )	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 <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> μg/m <sup>3</sup>	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m³		
04.12.2021	56	32	14	24	0.9	N.D.		
06.12.2021	64	24	20	30	0.8	N.D.		
11.12.2021	52	26	14	26	0.6	N.D.		
13.12.2021	58	30	22	30	0.8	N.D.		
18.12.2021	50	28	16	28	0.9	N.D.		
20.12.2021	46	24	14	24	0.8	N.D.		
25.12.2021	48	30	18	30	0.4	N.D.		
27.12.2021	60	32	16	28	0.6	N.D.		

Terms & conditions

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

End of the test report-



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

Yame & Address Of the Contamer TO, HINDALCO INDUSTRIES LIMITED,		REPORT N	REPORT NO		UES/TR/21-22/05973			
		LAB REF	NO	UES/21-22/AAQM/010276-010283				
		DATE OF	SAMPLING	03/01/2022 to	28/	/01/2022		
GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107		DATE OF	DATE OF RECEIPT		04/01/2022 to 29/01/2022			
		DATE OF REPORT		02 /02/2022				
				START: 04/01/2022		END: 01/02/2022		
		SAMPLE DI	ETAILS					
MONITORING FOR	AMBIENT AIR QUALITY	MONITORING	CUSTOMER I	RUF. NO. & DATE		D/SRV/2122/0045, 24-JULY-2021		
SAMPLING LOCATION	OFFICE AREA, BANKHET	A						
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY		LANCRATORY CHEMIST				
SAMPLING PROCEDURE	AS PER METHOD REFERE	MCE						
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM;s): SO2: 30MLX1 NO. PVC 1 RUBBER BLADDER: 1X1	BOTTLE, NO: 30						

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 6 CPCB Guidelines VolI	100					
Particulate Matter size less than 2.5 microns (FM <sub>2.5</sub> )	CPCBGuidelines VolI	60					
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80					
Nitrogen Dioxide (NO <sub>2</sub> )	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 <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m <sup>3</sup>			
03.01.2022	60	34	18	28	0.5	N.D.			
07.01.2022	66	28	12	24	0.7	N.D.			
10.01.2022	58	24	08	22	0.9	N.D.			
14.01.2022	52	32	10	28	0.5	N.D.			
17.01.2022	58	26	12	22	0.7	N.D.			
21.01.2022	56	22	14	20	0.8	N.D.			
24.01.2022	50	26	12	26	0.6	N.D.			
28.01.2022	68	30	10	24	0.8	N.D.			

Terms & conditions

The report for authorison, acceleration or as regal dispose to dispose to dispose.

Test sample will be related for 15 days after stace of test report unions eitherwise agreed with customer.

REVIEWED BY 02 2022

For ULTIMATE ENVIROLYFICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report-



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

TO, HINDALCO INDUSTRIES LIMITED,		REPORT NO		UES/TR/21-22/07920			
		LAB REF	LAB REF NO		UES/21-22/AAQM/013091-013098		
		DATE OF	SAMPLING	01/02/2022 to	25,	/02/2022	
GARE PALMA - IV/4, COAL MINE, VILLAGE - BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107		DATE OF	RECEIPT	02/02/2022 to	26/	/02/2022	
		DATE OF	DATE OF REPORT		01/03/2022		
		DATE OF ANALYSIS		START: 03/02/2022		END: 01/03/2022	
		SAMPLE DI	ETAILS				
MONITORING FOR	AMBIENT AIR QUALITY	MONITORING	CUSTOMER I	CUSTOMER REF. NO. 6 DATE		D/SRV/2122/0045, 24-JULY-2021	
SAMPLING LOCATION	OFFICE AREA, BANKNET	SA:			, , , , , , , ,		
DURATION OF SAMPLING	24 MOURS	SAMPLE COLLECTED BY		LABORATORY CHIMIST			
SAMPLING PROCEDURE	AS PER METROD REFERE	WCE					
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM <sub>22</sub> ); SO <sub>2</sub> : 30MLX1 NO. PVC 1 RUBBER BLADDER: 1X1	BOTTLE, NO: 30					

Parameter	Method Reference	NAAQM Standard	
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100	
Particulate Matter size less than 2.5 microns (PM <sub>2.5</sub> )	IS 5182 (Part 24): 2019 CPCB Guidelines VolI	60	
Sulphur Dioxide (802)	IS 5192 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80	
Nitrogen Dioxide (NO <sub>2</sub> )	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	410	

TEST REPORT								
Date of Sampling	PM <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m³		
01.02.2022	68	38	10	26	0.8	N.D.		
04.02.2022	64	34	16	22	0.6	N.D.		
07.02.2022	56	30	10	24	0.9	N.D.		
11.02.2022	48	24	80	20	0.7	N.D.		
14.02.2022	68	30	06	18	0.5	N.D.		
18.02.2022	52	28	10	24	0.8	N.D.		
21.02,2022	60	28	14	22	0.4	N.D.		
25.02.2022	72	36	12	28	0.9	N.D.		

Terms & conditions

REVIEWED BY

The report for publication, arbitrarios or as input shapers to facilitation.

That sought with the relations for 18 clays after leave of test report unless of parties against with continues.

This is for information as the surry has about for about parties and the continues.

Phuetp 01103/22 For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report-



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

TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107		REPORT NO		UES/TR/21-22/08928		
		LAB REF	NO ON	UES/21-22/AAQM/014621		
		DATE OF	SAMPLING	02/03/2022 to	28/	03/2022
		DATE OF REPORT  DATE OF ANALYSIS		03/03/2022 to	29/	03/2022
				02/04/2022 START: 04/03/2022 END: 02/04/202		
						END: 02/04/2022
TO STATE OF THE PARTY OF THE PA		SAMPLE DE	TAILS			
MONITORING FOR	AMBIENT AIR QUALITY	MONITORING	CUSTOMER P	WER REF. NO. & DATE		D/SRV/2122/0045, 24-JULY-2021
SAMPLING LOCATION	OFFICE AREA, BANGGET	A				
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY		LABORATORY CHEMIST		1
SAMPLING PROCEDURE	AS PER METHOD REFEREN	NCE		-		
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM;o): SO;: 30MLX1 NO. PVC 1 RUMBER BLADDER: 1X1	BOTTLE, NO: 300				

Test Method and NAAQM Standard for Ambient Air Quality Monitoring						
Parameter	Method Reference	NAAQM Standard				
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23); 2006 & CPCB Guidelines Vol1	100				
Particulate Matter size less than 2.5 microns (PM2.8)	IS 5182 (Part 24): 2019 CPCB Guidelines VolI	60				
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCS Guidelines VolI	80				
Nitrogen Dioxide (NO <sub>2</sub> )	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 <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m <sup>3</sup>	CO* mg/m³	Hg ng/m³		
02.03.2022	72	32	14	22	0.9	N.D.		
07.03.2022	70	38	12	26	0.5	N.D.		
11.03.2022	66	32	18	24	0.8	N.D.		
14.03.2022	58	24	0.6	28	0.5	N.D.		
18.03.2022	79	36	10	20	0.2	N.D.		
21.03.2022	68	28	08	26	0.6	N.D.		
25.03.2022	62	22	12	28	0.8	N.D.		
28.03.2022	80	38	10	22	0.7	N.D.		

### Terms & conditions

- The report for publication, arbitrarius or or legal dispute in forbidos
- First pample will be retained for 1.5 days after issue of two report within administrative agreed with sundenue.

200 is its information as the party has asked for above leaved skip.

REVIEWED BY

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 Confirmer TO.			MO.	UES/TR/21-22/3497			
	LAB RE	F NO.	UES/21-22/AAQM/6270-6278				
HINDALCO INDUSTRIE		DATE O	F SAMPLING	01/10/2021	to 25	/10/2021	
GARE PALMA - IV/4, COAL MINE, VILLAGE - BANKHETA, POST - MILUPARA, DISTT RAIGARH (C.G.) 496107		DATE OF RECEIPT		02/10/2021 to 26/10/2021			
		DATE O	DATE OF REPORT		01/11/2021		
		DATE OF ANALYSIS		START: 03/10/2021		END: 01/11/2021	
	SAMI	LE DETA	ILS	4			
MONITORING FOR	AMBIENT AIR QUALITY MON	TTORING	CUSTOMER REF.	NO. & DATE		SRV/2122/0045, 24-JULY-2021	
SAMPLING LOCATION	PIT OFFICE AREA, BANKHE	ra			-		
DURATION OF SAMPLING	24 HOURS	SAMPLE	COLLECTED BY	LABORATORY	CHEMIST		
SAMPLING PROCEDURE	AS PER METHOD REFERENCE			-			
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM;e): 1X1 SO:: 30MLX1 NO. PVC BOTT RUBBER BLACUER: 1X1 NO.						

Parameter	Method Reference	NAAQM Standard
Particulate Matter size less than 10 microns (FM <sub>LD</sub> )	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 <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80
Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 (Part 6): 2006 & CPCB Guidelines Vol1	80
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0
Mercury (Hg)	EPA Method IO-05	122

TEST REPORT								
Date of Sampling	PM <sub>10</sub> μg /m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m <sup>3</sup>		
01.10.2021	60	28	14	28	0.5	N.D.		
04.10.2021	52	24	12	26	0.8	N.D.		
08,10,2021	48	26	18	20	0.6	N.D.		
11.10.2021	46	28	10	26	0.7	N.D.		
14.10.2021	42	22	16	22	0.4	N.D.		
18.10.2021	50	20	08	28	0.6	N.D.		
22.10.2021	52	28	12	25	0.5	N.D.		
25.10.2021	40	26	10	22	0.9	N.D.		

Terms & conditions

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

01/11/2021

Test sample will be retained for 15 days after insur-of test report unless otherwise agreed with costs

his is for information as the party has asked for above texted

-End of the test report----

AUTHORIZED SIGNATORY

For ULTIMATE ENVIROLYTICAL SOLUTIONS



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

TO, HINDALCO INDUSTRIES LIMITED,		REPORT NO		UES/TR/21-22/04170		
		LAB RS	F NO	UES/21-22/AAQM/07477-7484		
		DATE C	F SAMPLING	01/11/2021	to 2	7/11/2021
GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107		DATE C	F RECEIPT	02/11/2021 to 29/11/2021		
		DATE OF REPORT		01/12/2021		
				START: 02/11/2021		END: 29/11/2021
		SAMPLE	DETAILS			
MONITORING FOR	AMBIENT AIR QUALITY	MONITORING	CUSTOMER REF.	NO. & DATE		/SRV/2122/0045, 24-JULY-2021
SAMPLING LOCATION	PIT OFFICE AREA, BAN	KHETA			-	
DURATION OF SAMPLING	24 MOURS	SAMPLE	COLLECTED BY	LABORATORY CHEMIST		r
SAMPLING PROCEDURE	AS PER METHOD REFEREN	NCE		-		
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM;o): SO:: 30MLX1 NO. PVC E RUBBER BLADDER: 1X1	SOTTLE, NO:				

Test Method and NAAQM Standard for Ambient Air Quality Monitoring							
Parameter	Method Reference	NAAQM Standard					
Particulate Matter size less than 10 microns (PM <sub>18</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100					
Particulate Matter size less than 2.5 microns (PM2.5)	CPCBGuidelines Vol1	60					
Sulphur Dioxide (SO <sub>3</sub> )	IS 5182 (Part 2): 2001, RA 2006 E CPCB Guidelines VolI	80					
Nitrogen Dioxide (NO <sub>2</sub> )	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 <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m³			
01.11.2021	62	30	16	30	0.6	N.D.			
06.11.2021	54	26	14	28	0.9	N.D.			
08.11.2021	50	28	16	22	0.8	N.D.			
13.11.2021	48	30	12	28	0.9	N.D.			
15.11.2021	44	24	18	24	0.6	N.D.			
20.11.2021	52	22	10	30	0.8	N.D.			
22.11.2021	54	26	14	26	0.6	N.D.			
27.11.2021	42	28	12	24	0.8	N.D.			

Terms & conditions

This exposit the positionalism, printendices or an legal plaquate in recommen

Test serges will be consequent by this stays office times of leaf report uniters.

Plade entral 21 REVIEWED BY For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report---



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

TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107		REPORT NO  LAB REF NO  DATE OF SAMPLING  DATE OF RECEIPT  DATE OF REPORT  DATE OF ANALYSIS		UES/TR/21-22/04913 UES/21-22/AAQM/08745-08752 04/12/2021 to 27/12/2021 05/12/2021 to 28/12/2021 01/01/2022 START:05/12/2021 END:30/12/20		08745-08752 7/12/2021	
	(0.0.) 10010)	SAMPLE	DETAILS		,	and   507 227 2021	
MONITORING FOR	AMBIENT AIR QUALITY H	CNITORING	CUSTOMER REF.			/SRV/2122/0045, 24-JULY-2021	
SAMPLING LOCATION	PIT OFFICE AREA, BANK	HETA			240.	54-0071-5051	
DURATION OF SAMPLING	24 HOURS	SAMPLE	COLLECTED BY	LABORATORY CHEMIST			
SAMPLING PROCEDURE	AS PER MUTHOD REFEREN	C38"		Property leading to the last of the last o			
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM;o): I SO;: 30MLXI NO. PVC BE RUBBER BLADDER: 1X1 N	OTTLE, NO:	TER PAPER (PM <sub>2.8</sub> 30MLX1 NO. PVC	): IXI NO. BOTTLE			

Parameter	Method Reference	NAAQM Standard
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100
Particulate Matter size less than 2.5 microns (FM <sub>2.5</sub> )	CPCB Guidelines VolI	60
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80
Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 (Fart 6): 2006 & CPCB Guidelines VolI	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 <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m			
04.12.2021	64	32	18	32	0.9	N.D.			
06.12.2021	56	28	16	30	0.8				
11.12.2021	52	30	18	24	0.6	N.D.			
13.12.2021	50	32	14	30	1.000 (A.C.)	N.D.			
18.12.2021	46	26	20		0.8	N.D.			
20.12.2021	54			26	0.4	N.D.			
The state of the s		24	12	32	0.9	N.D.			
25.12.2021	56	28	16	28	0.8	N.D.			
27.12.2021 emarks: * Duratio	44	30	14	26	0.9	N.D.			

Terms & conditions

The report for publication, arbitration or as hopel ships to inchesion.
 Test season with the continue of the continu

This is her known time as the party has solved for above head of says.

REVIEWED BY —————End of the test report—

then.

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY



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

TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107		REPORT	REPORT NO		UES/TR/21-22/05974		
		LAB RE	F NO	UES/21-22/	AAQM/	010284-010292	
		DATE C	OF SAMPLING	03/01/2022	to 2	8/01/2022	
		DATE OF RECEIPT DATE OF REPORT DATE OF ANALYSIS		04/01/2022 to 29/01/2022 02 /02/2022			
							START: 04/01/2022
						SAMPLE	DETAILS
MONITORING FOR	AMBIENT AIR QUALITY	MONITORING	CUSTOMER REF.	NO. & DATE		/SRV/2122/0045, 24-JULY-2021	
SAMPLING LOCATION	PIT OFFICE AREA, BAN	KHETA					
DURATION OF SAMPLING	24 HOURS	SAMPLE	LABORATORY CHAMIST				
SAMPLING PROCEDURE	AS PER METHOD REFEREN	NOR			0.0.0.000	1.11	
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM;s): SO <sub>2</sub> : 30MLX1 NO. PVC E RUBBER BLADDER: 1X1 I	OTTLE, NO:	TER PAPER (PM <sub>2.5</sub> 30MLX1 NO. PVC	): 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 <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100					
Particulate Matter size less than 2.5 microns (PM <sub>3.5</sub> )	CPCBGuidelines VolI	60					
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80					
Nitrogen Dioxide (NO <sub>2</sub> )	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 <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m³			
03.01.2022	60	20	14	24	0.7	N.D.			
07.01.2022	50	24	12	22	0.5	N.D.			
10.01.2022	58	22	16	26	0.8	N.D.			
14.01.2022	56	26	10	20	0.5	N.D.			
17.01.2022	48	24	08	28	0.4	N.D.			
21.01.2022	52	28	16	24	0.7	N.D.			
24.01.2022	58	22	12	20	0.5	N.D.			
28.01.2022	50	26	10	28	0.8	N.D.			

Terms & conditions

The report for publication, enterestive or an legal ellipsots in fortrasses.

First sample will be religious for 15 days after loose of had report update obstance agreed with continuer.

REVIEWED BY 02 2022

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 Custo TO,	met.	REPOR	REPORT NO		UES/TR/21~22/07921		
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107		LAB R	EF NO	URS/21-22/AAQM/013099-013106			
		DATE	OF SAMPLING	01/02/2022			
		DATE	OF RECEIPT	02/02/2022 to 26/02/2022			
		DATE	DATE OF REPORT		01/03/2022		
		DATE OF ANALYSIS		START: 03/02/2022		END: 01/03/2022	
		SAMPLE	DETAILS				
MONITORING FOR	AMBIENT AIR QUALITY	MONITORING	CUSTOMER REF.	NO. 6 DATE	N/PO	/SRV/2122/0045,	
SAMPLING LOCATION	PIT OFFICE AREA, BAN	KHETA			DID.	24-JULY-2021	
DURATION OF SAMPLING	24 HOURS		COLLECTED BY	* * PODA MONO			
SAMPLING PROCEDURE	AS PER METHOD REFERE		CVALACIAN BI	LABORATORY	CHEMIST		
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM;s); SO: 30MLXI NO. PVC 2 RUBBER BLADGER: 1X1	IXI NO., FIL	TER PAPER (PM <sub>2.8</sub> SOMEX1 NO. PVC	): IXI MO. BOTTLE			

Parameter	Method Reference	NAAQM
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	Standard 100
Particulate Matter size less than 2.5 microns (PM <sub>2.5</sub> )	IS 5182 (Part 24): 2019CPCBGuidelines Vol1	60
Sulphur Dioxide (SO <sub>2</sub> )	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)* Mercury (Hg)	IB 5182(Part 10):1999, RA 2003 BPA Method IO-5	4.0
	Total seasons and	

TEST REPORT									
Date of Sampling	PM <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Нд			
01.02.2022	68	22	14	28		ng/m			
04.02.2022	70	26	18	100000000000000000000000000000000000000	0.6	N.D.			
07.02.2022	64	28		20	0.8	N.D.			
11.02.2022	68		16	24	0.5	N.D.			
14.02.2022	58	30	12	28	0.9	N.D.			
18.02.2022	Total Company	28	08	22	0.7	N.D.			
Contract of the Contract of th	56	24	14	28	0.2	100000000000000000000000000000000000000			
21.02.2022	52	26	18	26		N.D.			
25.02.2022	60	28		1000	0.6	N.D.			
emarks: * Duratio			16	22	0.8	N.D.			

Terms & conditions

REVIEWED BY

The report for publication, extended or on regal dispose to Anticology.

That payable left he retained for M. A.

That a scapile will be retained for 15 days after some of text report various offer plue agreed with markunes.

This is for influentation as the party less wated for above better on.

Dudes - Sta

AUTHORIZED SIGNATORY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

-End of the test report-

# 1555



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

TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA, POST -MILUPARA, DISTT RAIGARH (C.G.) 496107		REPORT NO		UES/TR/21-22/08929		
		LAB RE	W NO	UES/21-22/AAQM/014622		
		DATE O	F SAMPLING	02/03/2022	to 2	8/03/2022
		DATE C	F RECEIPT	03/03/2022 to 29/03/2022 02/04/2022		
		DATE C	F REPORT			
		DATE OF ANALYSIS		START: 04/03/2022		END: 02/04/2022
		SAMPLE	DETAILS			COLUMN TO SERVICE AND ADDRESS OF THE PERSON
MONITORING FOR	AMBIENT AIR QUALITY	MONITORING	CUSTOMER REF.	NO. & DATE		/SRV/2122/0045, 24-JULY-2021
SAMPLING LOCATION	PIT OFFICE AREA, BAN	KHETA		15.	-	
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY			LABORATORY CHEMIST	
SAMPLING PROCEDURE	AS PER METHOD REFEREN	ACE				
SAMPLE QUANTITY/PACKING	FILTER PAPER (FM <sub>10</sub> ): SO <sub>2</sub> : 30mLX1 NO. PVC E RUBBER BLADDER: 1X1	OTTLE, NO:				

Test Method and NAAQM Standard for Ambient Air Quality Monitoring					
Parameter	Method Reference	NAAQM Standard			
Particulate Matter size less than 10 microns (FM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100			
Particulate Matter size less than 2.5 microns (PM <sub>2.5</sub> )	IS 5182 (Part 24): 2019CPCBGuidelines VolI	60			
Sulphur Dioxide (80 <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80			
Nitrogen Dioxide (NO <sub>2</sub> )	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 <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> μg/m³	CO* mg/m³	Hg ng/m³
02.03.2022	78	32	10	16	0.9	N.D.
07.03.2022	80	36	16	18	0.4	N.D.
11.03.2022	74	38	10	22	0.8	N.D.
14.03.2022	78	40	18	24	0.6	N.D.
18.03.2022	68	28	09	22	0.5	N.D.
21.03.2022	66	34	12	26	0.8	N.D.
25.03.2022	82	36	16	24	0.4	N.D.
28.03.2022	70	38	12	28	0.9	N.D.

### Terms & conditions

- \* The report for publication, artification or as logal dispute is Subigino,
- Ther sample will be retained for 15 days after man-of but report unites without a agreed with manage.

This is for information as the jury har asked for allose resky/ oxly.

REVIEWED BY

Phuelt

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

--- End of the test report---



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

TO,			JEPORT NO.		UES/TR/21-22/3510		
	STIMITED	LAB REF NO.		UES/21-22/AAQM/6302-6309			
HINDALCO INDUSTRIES LIMITED, GARE PALMA - IV/5, MILUPARA U/G COAL MINE, VILLAGE - MILUPARA, BLOCK - TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAN	PLING	01/10/2021 to	25/	/10/2021	
		DATE OF RECEIPT  DATE OF REPORT  DATE OF ANALYSIS		02/10/2021 to	26/	10/2021	
				01/11/2021			
				START: 03/10/2021		END: 01/11/2021	
		SAMPLE DETAI	LS	Artists 1900		1000	
MONITORING FOR	AMBIENT AIR QUAL	TTY MONITORING	CUSTOMER	REF. NO. & DATE		00/SRV/2122/0049, D.:24-JULY-2021	
SAMPLING LOCATION	MAIN OFFICE AREA,	MILUPARA			-		
DURATION OF SAMPLING	24 HOURS	24 HOURS SAMPLE COLLECTED BY			LABORATORY CHEMIST		
SAMPLING PROCEDURE	AS PER METHOD REP	TERENCE					
SAMPLE QUANTITY/PACKING	FILTER PAPER (FM <sub>1D</sub> ): 1XI NO., FILTER PAPER (FM <sub>2.3</sub> ): 1XI NO. SO <sub>2</sub> : 30MLXI NO. PVC BOTTLE, NO <sub>2</sub> : 30MLXI NO. PVC BOTTLE RUBBER BLADDER: 1XI NO.						

Test Method and NA	AQM Standard for Ambient Air Quality Mo	nitoring
Parameter	Method Reference	NAAQM Standard
Particulate Matter size less than 10 microns (PM;n)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100
Particulate Matter size less than 2.5 microns (PM <sub>2.5</sub> )	CPCB Guidelines VolI	60
Sulphur Dioxide (SO <sub>3</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80
Nitrogen Dioxide (NO <sub>2</sub> )	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 <sub>10</sub> μg /m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m³	
01.10.2021	46	28	18	28	0.7	N.D.	
04.10.2021	40	20	12	26	0.5	N.D.	
08.10.2021	46	26	16	24	0.9	N.D.	
11.10.2021	38	22	10	22	0.6	N.D.	
14.10.2021	34	28	18	28	0.4	N.D.	
18.10.2021	36	22	12	26	0.8	N.D.	
22.10.2021	48	26	10	20	0.6	N.D.	
25.10.2021	36	20	16	28	0.9	N.D.	

### Terms & conditions

- The report for auditration, arbitration or as local discours is factorists
- Yest sample will be intained for 15-days after (issue of test report unless athorwise agreed with custome

This is far minimum on the party has asked for above tests 1900LY7

REVIEWED BY

For ULTIMATE ENVIROLYPICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report--



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

TO.	WHEN Y	REPORT NO	UES/TR/21-22/04200			
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/0	7523-07530		
		DATE OF SAMPLING	02/11/2021 to 26,	/11/2021		
		DATE OF RECEIPT	03/11/2021 to 27/11/2021			
		DATE OF REPORT	01/12/2021			
		DATE OF ANALYSIS	DATE OF ANALYSIS START: 03/11/2021			
		SAMPLE DETAILS		210		
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. &	M/PO/SRV/2122/0049, DTD. 24-JULY-2021			
SAMPLING LOCATION	MAIN OFFICE AREA, MILUPAL	RA				
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	PLE 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 N	AAQM Standard for Ambient Air Quality N	Monitoring	
Parameter	Method Reference	NAAQM Standard	
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100	
Particulate Matter size less than 2.5 microns (PM <sub>2.5</sub> )	CPCBGuidelines VolI	60	
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines Vol1	80	
Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80	
Carbon Monoxide (CO)*	18 5182(Part 10):1999, RA 2003	4.0	
Mercury (Hg)	EPA Method 10-5		

TEST REPORT						
Date of Sampling	PM <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m
02.11.2021	48	30	20	26	0.8	N.D.
05.11.2021	42	22	14	24	0.6	N.D.
09.11.2021	48	28	18	26	0.8	N.D.
12.11.2021	40	24	12	24	0.4	N.D.
16.11.2021	36	30	20	26	0.6	N.D.
19.11.2021	38	24	14	22	0.9	N.D.
23.11.2021	46	28	12	26	0.7	N.D.
26.11.2021	38	22	18	24	0.8	N.D.

Terms & conditions

The report for politication, delibration in an input afficulty of East-Address

Text spripts self be retained for 15 days after beaut of rend report actions of sweets agreed with sustained. This is for retained on the posts between the description as the posts between the statement of the posts of the posts of the statement of the posts of the

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report.....



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

TO.	······································	REPORT NO	UES/TR/21-22/04940		
	TRIES LIMITED CARE	LAB REF NO	UES/21-22/AAQM/0	8789-08796	
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAMPLING	03/12/2021 to 28	/12/2021	
		DATE OF RECEIPT	04/12/2021 to 29/12/2021		
		DATE OF REPORT	01/01/2022		
		DATE OF ANALYSIS	START: 04/12/2021 END: 31/1		
		SAMPLE DETAILS			
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. & DATE	M/PO/SRV/2122/0049 DTD: 24-JULY-2021		
SAMPLING LOCATION	MAIN OFFICE AREA, MILUPAI	UA .	0441 24 0021-2022		
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.	NO., FILTER PAPER (PM2 E, NO2: 30MLX1 NO. PVC	7.5): IXI NO. BOTTLE		

	Monitoring	
Parameter	Method Reference	NAAQM
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	Standard 100
Particulate Matter size less than 2.5 microns (PM <sub>2.5</sub> )	CPCBGuidelines VolI	60
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80
Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	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 <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg
03.12.2021	50	32	22	28	0.9	ng/m
07.12.2021	44	24	16	26	0.8	the second second second second
10.12.2021	50	30	20	28		N.D.
14.12.2021	42	26	14		0.9	N.D.
17.12.2021	38	32	terioria.	26	0.6	N.D.
21.12.2021			22	28	0.8	N.D.
Charles and the Control of the Contr	40	26	16	24	1.0	N.D.
24.12.2021	48	30	14	28	0.8	N.D.
28.12.2021	40	24	20	26	0.9	N.D.

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SQLUTIONS

2022 AUTHORIZED SIGNATORY

-End of the test report.....



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

Name & Address Of The Costs TO.	ww.	REPORT NO	UES/TR/21-22/06024		
	TOURS I IMPER CARE	LAB REF NO	UES/21-22/AAQM/0	10393-010400	
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT. – RAIGARH (C.G.) 496107		DATE OF SAMPLING	04/01/2022 to 28,	/01/2022	
		DATE OF RECEIPT	05/01/2022 to 29/01/2022		
		DATE OF REPORT	02/02/2022		
		DATE OF ANALYSIS	START: 05/01/2022	END: 01/02/2022	
		SAMPLE DETAILS			
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. & DATE	M/PO/SRV/2122/0049, DTD. 24-JULY-2021		
SAMPLING LOCATION	MAIN OFFICE AREA, MILUPAI	RA			
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST		
SAMPLING PROCEDURE	AS FER METHOD REFERENCE				
SAMPLE QUANTITY/PACKING	FILTER PAPER (PMIO): 1X1 SO2: 30MLX1 NO. PVC BOTTI RUBBER BLADGER: 1X1 NO.				

Test Method and N	AAQM Standard for Ambient Air Quality M	lonitoring
Parameter	Method Reference	NAAQM Standard
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100
Particulate Matter size less than 2.5 microns (PM <sub>2.5</sub> )	CPCB Guidelines VolI	60
Sulphur Dioxide (SO <sub>2</sub> )	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 <sub>10</sub> µg/m³	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> μg/m <sup>3</sup>	CO* mg/m³	Hg ng/m³		
04.01.2022	58	22	12	26	0.7	N.D.		
08.01.2022	60	28	18	22	0.6	N.D.		
11.01.2022	58	24	14	28	0.8	N.D.		
15.01.2022	48	28	12	22	0.4	N.D.		
18.01.2022	40	30	16	24	0.8	N.D.		
22.01.2022	46	28	10	20	1.2	N.D.		
25.01,2022	44	32	18	26	0.7	N.D.		
28.01.2022	48	28	14	22	0.5	N.D.		

Terms & conditions

The specific publishes on the property of the state of the publishes.

Self-

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

End of the test report.....



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

TO.	mar.	REPORT NO	UES/TR/21-22/079	00	
	TRIES I IMITED CARE	LAB REF NO	UES/21-22/AAQM/0	13026-013033	
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAMPLING	01/02/2022 to 25	/02/2022	
		DATE OF RECEIPT	02/02/2022 to 26	/02/2022	
		DATE OF REPORT	01/03/2022		
		DATE OF ANALYSIS	START: 03/02/2022	END: 01/03/2022	
		SAMPLE DETAILS			
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. 4	M/FO/SRV/2122/0049, DTD. 24-JULY-2021		
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 (PMIO): 1X1 SO2: 30MLXI NO. PVC BOTTI RUSBER BLADDER: 1XI NO.				

Test Method and NAAQM Standard for Ambient Air Quality Monitoring						
Parameter	Method Reference	NAAQM Standard				
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100				
Particulate Matter size less than 2.5 microns (PM2.5)	IS 5182 (Part 24): 2019 CPCB Guidelines VolI	60				
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 4 CPCB Guidelines VolI	80				
Nitrogen Dioxide (NO <sub>2</sub> )	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 <sub>10</sub> µg/m³	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO₂ µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m³		
01.02.2022	60	26	10	22	0.5	N.D.		
04.02.2022	64	22	14	26	0.4	N.D.		
07.02.2022	52	28	10	22	0.2	N.D.		
11.02.2022	44	20	18	28	0.8	N.D.		
14.02.2022	48	24	12	20	0.2	N.D.		
18.02.2022	42	26	16	21	0.6	N.D.		
21.02.2022	48	30	10	22	0.9	N.D.		
25.02.2022	44	22	16	28	0.5	N.D.		

Terms & conditions

REVIEWED BY

Text samply will be related for 15 then after leave of text report action attended agreed with successor.

1 10 -

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

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



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

Hame & Address Of the Costs	MARK TO THE PROPERTY OF THE PR	REPORT NO	UES/TR/21-22/089	10
TO,		LAB REF NO	UES/21-22/AAQM/0:	14643
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAMPLING	02/03/2022 to 28	/03/2022
		DATE OF RECEIPT	03/03/2022 to 29/03/2022 02/04/2022	
		DATE OF REPORT		
		DATE OF ANALYSIS	START: 04/03/2022	END: 02/04/2022
		SAMPLE DETAILS		
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. 6 DATE	M/PO/SRV/2122/0049 DTD: 24-JULY-2021	
SAMPLING LOCATION	MAIN OFFICE AREA, MILUPAL	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 RUSBER BLADDER: 1X1 NO.			

	AAQM Standard for Ambient Air Quality Monito		
Parameter	Method Reference	NAAQM Standard	
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100	
Particulate Matter size less than 2.5 microns (PM <sub>2.5</sub> )	IS 5192 (Part 24): 2019 CPCB Guidelines VolI	60	
Sulphur Diaxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 g CPCB Guidelines VolI	80	
Nitrogen Dioxide (NO <sub>2</sub> )	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 <sub>10</sub> μg/m³	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> μg/m³	CO* mg/m³	Hg ng/m³		
02.03.2022	68	22	14	28	0.9	N.D.		
07.03.2022	62	28	16	24	0.5	N.D.		
11.03.2022	70	26	12	20	0.8	N.D.		
14.03.2022	54	28	14	26	0.2	N.D.		
18.03.2022	58	34	18	28	0.8	N.D.		
21.03.2022	52	36	12	22	0.4	N.D.		
25.03.2022	68	40	16	28	0.6	N.D.		
28.03.2022	54	32	12	24	0.8	N.D.		

### Terms & conditions

\* The most for explication, additions or as least discuss in forest-his

Hert paragram will be seenbook for 15 stays after inner of seet report unless scholasses agreed with successor.

Deschi22

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

REVIEWED BY

-End of the test report.....



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

Name & Address Of The Eastenier TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA - IV/5, MILUPARA U/G COAL MINE, VILLAGE - MILUPARA, BLOCK - TAMNAR, DISTT RAIGARH (C.G.) 496107		LAS REF NO. UES DATE OF SAMPLING 01/ DATE OF RECEIPT 02/		UES/2: 01/10, 02/10,	UES/TR/21-22/3511 UES/21-22/AAQM/6310-6317 01/10/2021 to 25/10/2021 02/10/2021 to 26/10/2021 01/11/2021	
		SAMPLE DETA	1-23	START:	03/10/2021	END: 01/11/2021
HONITORING FOR	AMBIENT AIR QUALIT		CUSTOMER REF	. NO. E		M/PO/SRV/2122/0049 DTD.:24-JULY-2021
SAMPLING LOCATION	STAFF QUARTAR, MAI	UPARA	1			
DURATION OF SAMPLING	24 HOURS	SAMPLE CO	COLLECTED BY		LABORATORY CHEMIST	
SAMPLING PROCEDURE	AS PER METHOD REFE	DUENCE				
SAMPLE QUANTITY/PACKING	SO2: 30MLX1 NO. PV	FILTER PAPER (PM <sub>10</sub> ): 1X1 NO., FILTER PAPER (PM <sub>2.0</sub> ): 1X1 NO. SO <sub>2</sub> : 30MLX1 NO. PVC BOTTLE, NO <sub>2</sub> : 30MLX1 NO. PVC BOTTLE RUBBER BLADER: 1X1 NO.				

Test Method and NA	AQM Standard for Ambient Air Quality Mo	onitoring
Parameter	Method Reference	NAAQM Standard
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100
Particulate Matter size less than 2.5 microns (PM2.1)	CPCB Guidelines Vol1	60
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80
Nitrogen Dioxide (NO <sub>2</sub> )	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	44

TEST REPORT								
Date of Sampling	PM <sub>10</sub> μg /m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> μg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m³		
01.10.2021	44	28	16	28	0.6	N.D.		
04.10.2021	52	24	12	22	0.2	N.D.		
08.10.2021	48	26	14	28	0.9	N.D.		
11.10.2021	38	22	18	30	0.8	N.D.		
14.10.2021	40	28	12	26	0.5	N.D.		
18,10,2021	48	26	16	24	0.8	N.D.		
22.10.2021	46	24	10	18	0.5	N.D.		
25.10.2021	42	28	12	26	0.7	N.D.		

### Terms & conditions

The report for publication, unbitration or us legal dispete is fashkalan.
Test sample will be relatived for 13 days after issue of test report union
This is far information us the party has asked for above less(s) and

For ULTIMATE ENVIROLYTICAL SOLUTIONS 01119 21 AUTHORIZED SIGNATORY REVIEWED BY -End of the test report-



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

Name & Address Of The Easter TO.	may",	REPORT NO	UES/TR/21-22/04201 UES/21-22/AAQM/07531-07538		
		LAB REF NO			
	RIES LIMITED, GARE	DATE OF SAMPLING	02/11/2021 to 26	5/11/2021	
PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF RECEIPT	03/11/2021 to 27	//11/2021	
		DATE OF REPORT	01/12/2021		
		DATE OF ANALYSIS	START: 03/11/2021	END: 28/11/2021	
		SAMPLE DETAILS			
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. 4 DATE	M/PO/SRV/2122/0049, DTD: 24-JULY-2021		
SAMPLING LOCATION	STAFF QUARTER, MILUPARA				
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHIM	IST	
SAMPLING PROCEDURE	AS PER METHOD REFERENCE		I DECEMBER OF THE PARTY OF THE	50001	
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM <sub>10</sub> ): 1X1 SO <sub>2</sub> : 30HLX1 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 <sub>IS</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100		
Particulate Matter size less than 2.5 microns (PM <sub>2.8</sub> )	CPCBGuidelines VolI	60		
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80		
Nitrogen Dioxide (NO <sub>2</sub> )	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 <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO₂ µg/m³	NO <sub>2</sub> µg/m <sup>3</sup>	CO* mg/m³	Hg ng/m³
02.11.2021	46	30	18	26	0.7	N.D.
05.11.2021	54	26	14	24	0.3	N.D.
09.11.2021	50	28	16	26	0.8	N.D.
12.11.2021	40	24	20	28	0.6	N.D.
16.11.2021	42	30	14	24	0.4	N.D.
19.11.2021	50	28	18	26	0.9	N.D.
23.11.2021	48	26	12	20	0.6	N.D.
26.11.2021	44	30	14	28	0.8	N.D.

Terms & conditions

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY



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

Name 2 Address Of The Event.	Magazin .	REPORT NO	UES/TR/21-22/04941 UES/21-22/AAQM/08797-08804		
UT 17-18-0	TRIES LIMITED, GARE	LAB REF NO			
PALMA - IV/5, MILI	IPAPA II/G COAL	DATE OF SAMPLING	03/12/2021 to 28		
MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF RECEIPT	04/12/2021 to 29/12/2021		
		DATE OF REPORT	01/01/2022		
		DATE OF ANALYSIS	START: 04/12/2021 END: 31/1		
		SAMPLE DETAILS			
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. 6	M/PO/SRV/2122/0049, DTD. 24-JULY-2021		
SAMPLING LOCATION	STAFF QUARTER, MILUPARA		7701 24 0022-20	62	
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEM		
SAMPLING PROCEDURE	AS PER METHOD REFERENCE			101	
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM:s): IX1 50; 30MLXI NO. PVC BOTTI RUBBER BLADDER: IX1 NO.	NO., FILTER PAPER (PM.: E, NO: 30MLXI NO. PVC	J: IXI NO. BOTTLE		

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

TEST REPORT						
Date of Sampling	PM <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	50 <sub>2</sub> μg/m <sup>3</sup>	NO₂ µg/m³	CO* mg/m³	Hg
03.12.2021	48	32	20	28	0.8	ng/m³
07.12.2021	56	28	16	26	0.4	N.D.
10.12.2021	52	30	20	28	2003-0449	N.D.
14.12.2021	42	26	22		0.9	N.D.
17.12.2021	44	32		30	0.8	N.D.
21.12.2021			16	26	0.6	N.D.
	52	30	20	28	0.8	N.D.
24.12.2021	50	28	14	22	0.9	N.D.
20.12.2021	46	32	16	30	0.6	N.D.

Terms & conditions

The report for authibation, erbitration or as legal dispute in harbidism

Test semple will be retained for 15 days after rease of test report agains afterware against with customes.

Thurst 2

For ULTIMATE ENVIROLYTICAL SOLUTIONS

REVIEWED BY

AUTHORIZED SIGNATORY



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

Home & Advisor Of the Control	war	REPORT NO	UES/TR/21-22/06025		
то,		LAB REF NO UES/21-22/AAC		4/010401-010408	
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAMPLING	04/01/2022 to 28	3/01/2022	
		DATE OF RECEIPT			
		DATE OF REPORT			
		DATE OF ANALYSIS	START: 05/01/2022	END: 01/02/2022	
		SAMPLE DETAILS	BEFLEX		
MONIFORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. 4	M/PO/SRV/2122/0049, DTD. 24-JULY-2021		
SAMPLING LOCATION	STAFF QUARTER, MILUPARA	-10			
DURATION OF SAMPLING	24 NOURS	SAMPLE COLLECTED BY	LABORATORY CHEM	ıst	
SAMPLING PROCEDURE	AS PER METHOD REFERENCE		- International Control	2000	
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM <sub>10</sub> ): IXI SO <sub>2</sub> : JOHLXI NO. PVC BOTT; RUBBER BLADDER: IXI NO.			I	

Test Method and NAAQM Standard for Ambient Air Quality Monitoring				
Parameter	Method Reference	NAAQM Standard		
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100		
Particulate Matter size less than 2.5 microns (PM <sub>2.5</sub> )	CPCB Guidelines VolI	60		
Sulphur Dioxide (SO2)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80		
Nitrogen Dioxide (NO <sub>2</sub> )	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 <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	5O <sub>2</sub> μg/m <sup>3</sup>	NO₂ µg/m³	CO* mg/m³	Hg ng/m <sup>2</sup>
04.01.2022	56	20	10	22	0.6	N.D.
08.01.2022	62	26	12	24	0.4	N.D.
11.01.2022	58	20	16	20	0.7	N.D.
15.01.2022	50	28	10	26	0.8	N.D.
18.01.2022	54	24	14	22	0.4	N.D.
22,01.2022	68	26	12	24	0.8	N.D.
25.01.2022	56	22	12	28	0.6	N.D.
28.01.2022	48	24	16	20	0.7	N.D.

Forms & conclitions

The report for publication, achievation or as legal dispute in &
Tell autists will be retained for 16 days after lesses of feet or
Tell autists will be retained for 16 days after lesses of feet or

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY



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

Name & Address Of The Cantar	mar	REPORT NO	UES/TR/21-22/079	R/21-22/07901		
TO,		LAB REF NO	UES/21-22/AAQM/013034-013035			
	RIES LIMITED, GARE	DATE OF SAMPLING	01/02/2022 to 25	/02/2022		
PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF RECEIPT	02/02/2022 to 26	6/02/2022		
		DATE OF REPORT	01/03/2022			
		DATE OF ANALYSIS	START: 03/02/2022	END: 01/03/2022		
		SAMPLE DETAILS	Comment of the			
HONITORING FOR .	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. 6 DATE	M/FO/SRV/2122/0049, DTD. 24-JULY-2021			
SAMPLING LOCATION	STAFF QUARTER, MILUPARA		7	1100-		
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEM	IST		
SAMPLING PROCEDURE	AS PER METHOD REFERENCE					
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM:s): 1X1 SO: 30MLX1 NO. PVC BOTT: RUBBER BLADUER: 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 <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100		
Particulate Matter size less than 2.5 microns (PM2.5)	IS 5182 (Part 24): 2019 CPCB Guidelines VolI	60		
Sulphur Dioxide (SO <sub>2</sub> )	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	122		

TEST REPORT						
Date of Sampling	PM <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m³
01.02.2022	52	22	16	26	0.7	N.D.
04.02.2022	68	25	12	26	0.5	N.D.
07.02.2022	52	20	10	22	0.8	N.D.
11.02.2022	46	24	18	28	0.6	N.D.
14,02.2022	58	28	14	20	0.5	N.D.
18.02.2022	60	20	18	26	0.9	N.D.
21.02.2022	58	26	10	20	0.7	N.D.
25.02.2022	62	28	16	18	0.5	N.D.

Terms & conditions

The report for publication, arbitration or as logal dispute in hutsidates.

Text except on patients of for 15 days after issue of just report unless atherwise agreed with austoma:

REVIEWED BY

End of the test report.....

FOULTIMATE ENVIROLYTICAL SOLUTIONS .

AUTHORIZED SIGNATORY



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

Name & Address Of The Coston	DO.	REPORT NO	UES/TR/21-22/08941 UES/21-22/AAQM/014644		
то,		LAB REF NO			
	RIES LIMITED, GARE	DATE OF SAMPLING	02/03/2022 to 28	7/03/2022	
PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF RECEIPT	03/03/2022 to 29	/03/2022	
		DATE OF REPORT	02/04/2022		
		DATE OF ANALYSIS	START: 04/03/2022	END: 02/04/2022	
		SAMPLE DETAILS	THE RESERVE	ATT THE REAL PROPERTY.	
HONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. 4 DATE	M/PO/SRV/2122/0049, DTD. 24-JULY-2021		
SAMPLING LOCATION	STAFF QUARTER, MILUPARA	0.0000		511	
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY LABORATORY CHEMIST		IST	
SAMPLING PROCEDURE	AS PER METHOD REFERENCE				
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM <sub>10</sub> ): IXI SO <sub>2</sub> : 30MLXI NO. PVC BOTT RUBBER BLADDER: IXI NO.				

Parameter	Method Reference	NAAQM Standard	
Particulate Matter size less than 10 microns (PM;p)	IS 5182 (Part 23): 2006 & CPCB Guidelines Vol1	100	
Particulate Matter size less than 2.5 microns (PM <sub>3.5</sub> )	IS 5182 (Part 24): 2019 CPCB Guidelines VolI	60	
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80	
Nitrogen Dioxide (NO <sub>2</sub> )	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 <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m <sup>3</sup>	
02.03.2022	62	30	16	28	0.8	N.D.	
07.03.2022	78	34	10	26	0.6	N.D.	
11.03.2022	62	28	12	25	0.2	N.D.	
14.03.2022	56	20	14	22	0.4	N.D.	
18.03.2022	78	28	18	26	0.8	N.D.	
21.03.2022	. 70	34	10	28	0.2	N.D.	
25.03.2022	.68	28	12	22	0.9	N.D.	
28.03.2022	72	38	18	20	0.7	N.D.	

Terms & conditions

The report for publication, orbitration or as legal dispute to devictions.

Test sample will be establed for 15 days after town of test report orders otherwise agriced with case

This is for information as the paste has miled for above testils only.

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

02/04/22

End of the test report.....

REVIEWED BY

02/04/2



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

Name & Authors Of The Contomer		REPORT NO.		UES/TR/21-22/3512		
то,		LAB REF NO.		UES/21-22/AAQM/6318-6325		
HINDALCO INDUSTRIE		DATE OF SAMP	LING	01/10/2021 to 2	25/10/2021	
GARE PALMA - IV/5, MILUPARA U/G COAL MINE, VILLAGE - MILUPARA, BLOCK - TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF REPORT DATE OF ANALYSIS		02/10/2021 to 26/10/2021		
				01/11/2021		
				START: 03/10/2021	END:01/11/2021	
		SAMPLE DETAIL	S			
MONITORING FOR	AMBIENT AIR QUALITY MONITORING		CUSTOM	R REF. NO. 6	M/PO/SRV/2122/0049, DTD.:24-JULY-2021	
SAMPLING LOCATION	HIL COLONY, KONDE	T.				
DURATION OF SAMPLING	24 HOURS SAMPLE COLLECTED BY			D BY LABORATORY CHEMIST		
SAMPLING PROCEDURE	AS PER METHOD REF	ERENCE				
SAMPLE QUANTITY/PACKING	FILTER PAPER (FM;2): IXI NO., FILTER PAPER (FM;2): IXI NO. SO;: 30MLX1 NO. PVC BOTTLE, NO;: 30MLX1 NO. PVC BOTTLE RUBBER BLADDER: IXI NO.					

Parameter	Method Reference	NAAQM Standard
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	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 <sub>2</sub> )	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 <sub>10</sub> μg /m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m³	
01.10.2021	50	25	18	20	0.9	N.D.	
04.10.2021	58	32	10	24	0.6	N.D.	
08.10.2021	52	28	14	26	0.2	N.D.	
11.10.2021	44	36	10	28	0.8	N.D.	
14.10.2021	52	34	16	20	0.9	N.D.	
18.10.2021	58	20	12	26	1.0	N.D.	
22.10.2021	64	22	10	22	0.8	N.D.	
25.10.2021	58	38	14	29	0.5	N.D.	

#### Terms & conditions

REVIEWED BY

- The report for publication, arbitration or as legal disjuice is forbiddus.
- Test sample will be retained for 15 days after issue of test region unless etillewise agreed with customer.

+ This is for information as the party has asked for above legiful and

For ULTIMATE ENVIRORYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

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



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

TO.	****	REPORT NO	UES/TR/21-22/042	02
CO TO		LAB REF NO	REF NO UES/21-22/AAQM/07539-07	
	RIES LIMITED, GARE	DATE OF SAMPLING	02/11/2021 to 26	/11/2021
PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF RECEIPT	03/11/2021 to 27	/11/2021
		DATE OF REPORT	RT 01/12/2021	
		DATE OF ANALYSIS	START: 03/11/2021	END: 28/11/2021
		SAMPLE DETAILS		
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO.	M/PO/SRV/2122/0049, DTD. 24-JULY-2021	
SAMPLING LOCATION	HIL COLONY, KONDERL	1.5.500000		
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST	
SAMPLING PROCEDURE	AS PER METHOD REFERENCE	1.00	-	
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM;s): 1XI SO: 30MLX1 NO. PVC BOTT RUBBER BLADGER: 1XI NO.	NO., FILTER PAPER (PM LE, NO <sub>2</sub> : 30MLX1 NO. PV	M <sub>L.I</sub> ): 1X1 NO. PC BOTTLE	

Test Method and NAAQM Standard for Ambient Air Quality Monitoring				
Parameter	Method Reference	NAAQM Standard		
Particulate Matter size less than 10 microns (FM <sub>10</sub> )	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 <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80		
Nitrogen Dioxide (NO <sub>3</sub> )	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 <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> μg/m³	NO₂ µg/m³	CO*	Hg ng/m³	
02.11.2021	52	26	20	22	0.8	N.D.	
05.11.2021	60	34	12	26	0.5	N.D.	
09.11.2021	54	30	16	28	0.4	N.D.	
12.11.2021	46	38	12	30	0.9	N.D.	
16.11.2021	54	32	18	22	0.8	N.D.	
19.11.2021	60	24	14	28	1.1	N.D.	
23.11.2021	66	26	12	24	0.6	N.D.	
26.11.2021	60	36	16	30	0.4	N.D.	

Terms & conditions

The report for positional authorities or as input strands to the trible.
 Tool caregale self the relational for 15 steps after stone of this report serious automates Partie Sealth and the control of the con

a is not believe action on the party has assent the discretification richy

REVIEWED BY

The state of the s

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY



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

Name & Address Of The Custor	TWE .	REPORT NO	UES/TR/21-22/049	UES/TR/21-22/04942		
TO,		LAB REF NO	UES/21-22/AAQM/08805-08812			
	RIES LIMITED, GARE	DATE OF SAMPLING	MPLING 03/12/2021 to 28/12/2021			
PALMA - IV/5, MILUPARA U/G COAL MINE, VILLAGE - MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF RECEIPT	04/12/2021 to 29/12/2021 01/01/2022			
		DATE OF REPORT				
		DATE OF ANALYSIS	START: 04/12/2021	END: 31/12/2021		
		SAMPLE DETAILS				
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. 6 DATE	M/FO/SRV/2122/0049, DTD: 24-JULY-2021			
SAMPLING LOCATION	HIL COLONY, MONDREL					
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST			
SAMPLING PROCEDURE	AS PER METHOD REFERENCE	Was a second a management of the second				
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM:s): IXI SO: 30MLX1 NO. PVC BOTT 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 <sub>10</sub> )	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 <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 g CPCB Guidelines VolI	80		
Nitrogen Dioxide (NO <sub>2</sub> )	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 <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	50 <sub>2</sub> μg/m <sup>3</sup>	NO <sub>2</sub> μg/m <sup>3</sup>	CO* mg/m³	Hg ng/m³	
03.12.2021	54	28	22	24	0.9	N.D.	
07.12.2021	62	36	14	28	0.6	N.D.	
10.12.2021	56	32	18	30	0.5	N.D.	
14.12.2021	48	36	14	32	0.8	N.D.	
17.12.2021	56	34	20	24	0.6	N.D.	
21.12.2021	62	26	16	30	1.0	N.D.	
24,12,2021	68	28	14	26	0.8	N.D.	
28.12.2021	62	38	18	32	0.6	N.D.	

Terms & conditions

0110

Test rempts will be relatived by 15 days after some of test separt and no gatherine at the arm continues.

1 10

REVIEWED BY AUTHORIZE

End of the test report.....

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

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

51 200



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

TO.	WW.	REPORT NO	UES/TR/21-22/060	6026	
	PRICE LIMITED CARE	LAB REF NO	UES/21-22/AAQM/010409-010416		
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAMPLING	04/01/2022 to 28	/01/2022	
		DATE OF RECEIPT	05/01/2022 to 29	/01/2022	
		DATE OF REPORT	02/02/2022		
		DATE OF ANALYSIS	START: 05/01/2022	END: 01/02/2022	
The first been to be the second		SAMPLE DETAILS	The Part Labor Labor.		
MONITORING FOR	AMBIENT AIR QUALITY MONITORING				
SAMPLING LOCATION	HIL COLONY, KONDREL				
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST		
SAMPLING PROCEDURE	AS PER METHOD REFERENCE	400	-		
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM:s): 1X1 SO: 30MLX1 NO. PVC BOTT: RUBBER BLADDER: 1X1 NO.	NO., FILTER PAPER (DR UE, NO: 30HLK1 NO. PV	G.s): 1X1 NO. C BOTTLE		

Test Method and NAAQM Standard for Ambient Air Quality Monitoring					
Parameter	Tremos Reference				
Farticulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	Standard 100			
Particulate Matter size less than 2.5 microns (PM <sub>2.5</sub> )	CPCB Guidelines VolI	60			
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80			
Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80			
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0			
Morcury (Hg)	EPA Method IO-5	244			

TEST REPORT							
Date of Sampling	PM <sub>10</sub> µg/m³	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> μg/m³	NO <sub>2</sub> μg/m³	CO* mg/m³	Hg ng/m³	
04.01.2022	58	26	10	28	0.7	N.D.	
08.01.2022	68	20	16	22	0.5	N.D.	
11.01.2022	62	28	12	34	0.9	N.D.	
15.01.2022	54	26	18	22	0.4	N.D.	
18.01.2022	68	22	14	24	0.8	N.D.	
22.01.2022	60	28	12	22	1.2	N.D.	
25.01.2022	54	24	12	28	0.9	N.D.	
28.01.2022	68	20	11	22	0.5	N.D.	

-End of the test report.....

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY



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

Hame & Address Of The Control	WWY .	REPORT NO	UES/TR/21-22/079	21-22/07902		
то,		LAB REF NO	UES/21-22/AAQM/013036-013043			
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAMPLING	01/02/2022 to 25	/02/2022		
		DATE OF RECEIPT	02/02/2022 to 26	/02/2022		
		DATE OF REPORT	01/03/2022			
		DATE OF ANALYSIS	START: 03/02/2022	END: 01/03/2022		
		SAMPLE DETAILS				
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO.	M/FO/SRV/2122/0049, DTD. 24-JULY-2021			
SAMPLING LOCATION	HIL COLONY, KONDKEL	Massacre news				
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST			
SAMPLING PROCEDURE	AS PER METHOD REFERENCE	AS PER METHOD REFERENCE				
SAMPLE QUANTITY/PACKING .	FILTER PAPER (PM <sub>10</sub> ): 1X1 SO <sub>2</sub> : 30MLX1 NO. PVC BOTT. RUBBER BLADDER: 1X1 NO.					

Test Method and NAAQM Standard for Ambient Air Quality Monitoring				
Parameter	Method Reference			
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23); 2006 & CPCB Guidelines VolI	100		
Particulate Matter size less than 2.5 microns (PM <sub>2.5</sub> )	IS 5182 (Part 24): 2019 CPCB Guidelines Vol.~I	60		
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80		
Nitrogen Dioxide (NO <sub>2</sub> )	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	(m.m.		

TEST REPORT							
Date of Sampling	PM <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m³	
01.02.2022	68	24	16	20	0.9	N.D.	
04.02.2022	62	28	10	28	0.4	N.D.	
07.02.2022	58	24	18	30	0.6	N.D.	
11.02.2022	56	22	14	28	0.2	N.D.	
14.02.2022	70	26	12	20	0.8	N.D.	
18.02.2022	62	22	18	22	0.6	N.D.	
21.02.2022	58	28	16	26	0.2	N.D.	
25.02.2022	50	18	12	24	0.8	N.D.	

Terms & conditions

The report for publication, interested on or an ingel dispose of fractionies.

First sample will be reliabled for 15 days after basis of test report arrives offer-quiet agreed will be called a present with the control of test report arrives of the region of test report arrives of the region of test regions.

Though 3/22

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY



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

Name & Address Of The Costs	May .	REPORT NO	UES/TR/21-22/089	42	
TO,		LAB REF NO	LAB REF NO UES/21-22/AAQM/0146		
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF SAMPLING	02/03/2022 to 28	/03/2022	
		DATE OF RECEIPT	03/03/2022 to 29/03/2022		
		DATE OF REPORT	02/04/2022	ALL LOS AND	
		DATE OF ANALYSIS	START: 04/03/2022	END: 02/04/2022	
		SAMPLE DETAILS	NAME OF TAXABLE PARTY.	Aller and the	
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. 6 DATE	M/PO/SRV/2122/0049, DTD. 24-JULY-2021		
SAMPLING LOCATION	HIL COLONY, KONDKEL	Laurana - Communication and Communication	200, 20 0000 2002		
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST		
SAMPLING PROCEDURE	AS PER METHOD REFERENCE				
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM:s): 1XI SO: 30MLX1 NO. PVC BOTTI RUBBER BLADDER: 1X1 NO.				

Parameter	Method Reference	NAAQM Standard	
Particulate Matter size less than 10 microns (PM <sub>1p</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100	
Particulate Matter size less than 2.5 microns (PM2.5)	IS 5182 (Part 24): 2019 CPCB Guidelines VolI	60	
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80	
Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 (Part 6): 2006 a 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 <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m	
02.03.2022	76	28	14	22	0.9	N.D.	
07.03.2022	68	26	18	26	0.4	N.D.	
11.03.2022	48	22	10	32	0.8	N.D.	
14.03.2022	58	28	12	28	0.4	N.D.	
18.03.2022	72	24	18	26	0.6	N.D.	
21.03.2022	68	26	16	20	0.8	N.D.	
25.03.2022	70	24	12	28	0.5	N.D.	
28.03.2022	68	26	14	20	0.9	N.D.	

Terms & conditions

The report for publication, arbitration or an liquid discuss to dissipation.

Test sample will be occurred for 11 days after locus of cest report unites otherwise appeal with communities to be before one for gainst the above needle colo.

This is for influencing as the party has asked for obeyer mottal only

02104/2

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

End of the test report.....



#### 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,		DATE O	REPORT NO.  LAB REF NO.  DATE OF SAMPLING  DATE OF RECEIPT  DATE OF REPORT		UES/TR/21-22/3513  UES/21-22/AAQM/6326-6334  01/10/2021 to 25/10/2021  02/10/2021 to 26/10/2021  01/11/2021		
DISTT RAIGARH (C.C	DATE OF ANALYSIS STAI SAMPLE DETAILS		START: 03/10	START: 03/10/2021 END: 01/11			
MONITORING FOR	AMBIENT AIR QUALITY		CUSTOMER REF.	NO. & DATE		SRV/2122/0049,	
SAMPLING LOCATION	ETP AREA, KONDEL	-14-2125-01.00	2018/04/28/2000	100-100-000	DID.:	24-JULY-2021	
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY		LABORATORY CHEMIS		T	
SAMPLING PROCEDURE	AS PER METHOD REFER	ENCE					
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM <sub>0.0</sub> ): IXI NO., FILTER PAPER (PM <sub>0.3</sub> ): IXI NO. SO <sub>2</sub> : JONLXI NO. PVC BOTTLE, NO <sub>2</sub> : JONLXI 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 <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100		
Particulate Matter size less than 2.5 microns (PM2.3)	CPCB Guidelines VolI	60		
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80		
Nitrogen Dioxide (NO <sub>2</sub> )	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 <sub>10</sub> µg /m³	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> μg/m <sup>3</sup>	CO* mg/m³	Hg ng/m³		
01.10.2021	54	28	12	26	0.9	N.D.		
04.10.2021	42	22	10	28	0.7	N.D.		
08.10.2021	52	34	16	22	0.6	N.D.		
11.10.2021	46	28	08	20	0.2	N.D.		
14,10.2021	50	32	12	28	0.8	N.D.		
18.10.2021	48	24	10	20	0.6	N.D.		
22.10,2021	54	28	16	16	0.9	N.D.		
25.10.2021	68	30	14	22	0.5	N.D.		

#### Terms & conditions

- The report for publication, arbitration or as legal dispute is forbidide

Yant sample will be retained for 15 stays after time of reat or 100 LK from the agreed with customs

Por ULTIMATE ENVIRORYTICAL SOLUTIONS

REVIEWED BY

-End of the test report-----

AUTHORIZED SIGNATORY



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

Norma & Address Of The Conto	mor	REPORT NO	UES/TR/21-22/042	203
TO,		LAB REF NO	UES/21-22/AAQM/07547-07554 02/11/2021 to 26/11/2021	
	TRIES LIMITED, GARE	DATE OF SAMPLING		
PALMA – IV/5, MILUPARA U/G COAL MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF RECEIPT	DATE OF RECEIPT 03/11/2021 to 27/11/2021 DATE OF REPORT 01/12/2021	
		DATE OF REPORT		
		DATE OF ANALYSIS	START: 03/11/2021	END: 28/11/2021
		SAMPLE DETAILS		
HOWITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. & DATE	M/PO/SRV/2122/0045 DTD, 24-JULY-2021	9,
SAMPLING LOCATION	ETP AREA, KONDREL	11.		
DURATION OF SAMPLING 24 HOURS		SAMPLE COLLECTED BY	7	
SAMPLING PROCEDURE	AS PER METHOD REFERENCE			
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM;p): 1X1 SO;: 3GMLX1 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 <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100		
Particulate Matter size less than 2.5 microns (PM <sub>2.5</sub> )	CPCBGuidelines VolI	50		
Sulphur Dioxide (SO <sub>3</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80		
Nitrogen Dioxide (NO <sub>2</sub> )	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 <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m³	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m³
02.11.2021	56	30	14	28	1.0	N.D.
05.11.2021	4.4	24	12	30	0.8	N.D.
09.11.2021	54	36	18	24	0.8	N.D.
12.11.2021	48	30	10	22	0.4	N.D.
16.11.2021	52	34	14	30	0.9	N.D.
19.11.2021	50	26	12	22	0.8	N.D.
23.11.2021	56	30	18	18	1.0	N.D.
26.11.2021	70	32	16	24	0.6	N.D.

Terms & conditions
The report for publication

The report for publication, eristiation or an regal elegate in technique.

Foot purpose with the relativest for 15 days after dates of feet report values with example leavest with a continue of the publication.

This is the industration on the pirty line unled her above todays units.

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY



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

TO.	READ .	REPORT NO	UES/TR/21-22/04943		
	TRIES LIMITED, GARE	LAB REF NO	UES/21-22/AAQM/08813-0882		
PALMA - IV/5, MILL		DATE OF SAMPLING	03/12/2021 to 28	8/12/2021	
MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF RECEIPT	04/12/2021 to 29/12/2021 01/01/2022		
		DATE OF REPORT			
		DATE OF ANALYSIS	START: 04/12/2021	END: 31/12/2021	
		SAMPLE DETAILS			
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. &	M/PO/SRV/2122/0549, DTD. 24-JULY-2021		
SAMPLING LOCATION	ETP AREA, KONDKEL				
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST	y .	
SAMPLING PROCEDURE	AS PER METHOD REFERENCE				
SAMPLE QUANTITY/PACKING	FILTER PAPER (PMLs): IXI SO: 30MLX1 NO. PVC BOTTI RUBBER BLADDER: IXI NO.	NO., FILTER PAPER (PM: E, NO: 30MLXI NO. PVC	a): 1X1 NO. BOTTLE		

Test Method and NAAQM Standard for Ambient Air Quality Monitoring				
Method Reference	NAAQM Standard			
IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100			
CPCB Guidelines VolI	60			
IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80			
IS 5182 (Part 6): 2006 & CPCB	80			
IS 5182(Part 10):1999, RA 2003	4.0			
	Method Reference  IS 5182 (Part 23): 2006 & CPCB Guidelines VolI  CPCB Guidelines VolI  IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI  IS 5182 (Part 6): 2006 & CPCB Guidelines VolI			

TEST REPORT						
Date of Sampling	PM <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m³
03.12.2021	58	32	16	30	1.1	N.D.
07.12.2021	46	26	14	32	0.9	N.D.
10.12.2021	56	38	20	26	0.6	
14.12.2021	50	32	12	24	0.2	N.D.
17.12.2021	54	36	16	32	0.8	N.D.
21.12.2021	52	28	14	24		N.D.
24.12.2021	58	32	20	The second second	0.9	N.D.
28.12.2021	72			20	1.1	N.D.
emarks: * Duratio		34	18	26	0.8	N.D.

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SQLUTIONS

AUTHORIZED SIGNATORY



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

Non- A. A. Coresa Of For Coates	nar -	REPORT NO	UES/TR/21-22/06027		
TO,		LAB REF NO UES/21-22/AAQM		010417-010424	
	RIES LIMITED, GARE	DATE OF SAMPLING	**************************************		
PALMA - IV/5, MILL		DATE OF RECEIPT			
MINE, VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF REPORT	02/02/2022		
		DATE OF ANALYSIS	START: 05/01/2022	END: 01/02/2022	
E FULL GARE		SAMPLE DETAILS			
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. &	M/DO/SRV/2122/0045 DID. 24-JULY-2021	,	
SAMPLING LOCATION	ETP AREA, KONDKEL				
DUNCATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHAMIST		
SAMULING PROCEDURE	AS PER METHOD REPERENCE	-			
SAMPLE CUANTITY/PACKING	FILTER PAPER (PM <sub>10</sub> ): 1XI SO <sub>2</sub> : 30HLX1 NO. PVC BOTT. RUBBER BLADDER: 1XI NO.	NO., FILTER PAPER (PM. LE, NO: 30MLXI NO. PVC	): 1X1 NO. BOTTLE		

	AAQM Standard for Ambient Air Quality M	ionitoring
Parameter	Method Reference	NAAQM Standard
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100
Particulato Matter size less than 2.5 microns (PM2.s)	CPCB Guidelines VolI	60
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80
Sitrogen Diaxide (NO <sub>2</sub> )	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	BO
Carbon Monoxide (CO)*	IS 5182 (Part 10):1999, RA 2003	4.0
Maccury (Hg)	EPA Method IO-5	

TEST REPORT						
Date of Sampling	PM <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	50 <sub>2</sub> μg/m <sup>3</sup>	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m³
04.01.2022	52	24	10	28	0.8	N.D.
02.01.2022	40	28	08	22	0.6	N.D.
11,01,2022	60	32	12	24	0.2	N.D.
15.01.2022	56	38	10	20	0.8	N.D.
18.01.2022	58	30	08	18	0.5	N.D.
22.01.2022	50	24	.06	16	0.9	N.D.
25.01.2022	64	30	10	18	0.7	N.D.
28.01.2022	68	32	12	22	0.5	N.D.

Terms & conditions

The region for publication, askession or as legar dispute in factions.
 Yes immore self to received for 19 days when more of best report askess unberged, exceed with contrast.

Trokur 02/02/2022

For ULTIMATE ENVIROLYTICAL SOCUTIONS

AUTHORIZED SIGNATORY



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

TO.	mer	REPORT NO	UES/TR/21-22/07	903	
		LAB REF NO	UES/21-22/AAQM/(	013044-013051	
	RIES LIMITED, GARE	DATE OF SAMPLING	01/02/2022 to 25/02/2022		
PALMA – IV/5, MILUPARA U/G COAL MINE,VILLAGE – MILUPARA, BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF RECEIPT	02/02/2022 to 26/02/2022		
		DATE OF REPORT	01/03/2022		
		DATE OF ANALYSIS	START: 03/02/2022	END: 01/03/2022	
		SAMPLE DETAILS		1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. &	M/PO/SRV/2122/0045 DID. 24-JULY-2021	,	
SAMPLING LOCATION	ETP AREA, KONDKEL				
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY LABORATORY CHEMIST			
SAMPLING PROCEDURE	AS PER METHOD REFERENCE				
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM <sub>10</sub> ): 1X1 SO <sub>2</sub> : 30MLX1 NO. PVC BOTTI RUBBER BLADDER: 1X1 NO.				

Parameter	Method Reference	NAAQM Standard	
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI		
Particulate Matter size less than 2.5 microns (PM <sub>2.5</sub> )	IS 5182 (Part 24): 2019 CPCB Guidelines VolI	60	
Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 (Part 2); 2001, RA 2006 & CPCB Guidelines VolI	80	
Nitrogen Dioxide (NO <sub>2</sub> )	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	311	

TEST REPORT						
Date of Sampling	PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> μg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO₂ µg/m³	CO* mg/m³	Hg ng/m <sup>3</sup>
01.02.2022	58	22	16	24	0.9	N.D.
04.02.2022	48	26	08	28	0.5	N.D.
07.02.2022	70	36	18	22	0.8	N.D.
11.02.2022	64	30	08	26	0.6	N.D.
14.02.2022	52	32	12	12	0.4	N.D.
18.02.2022	68	28	08	18	0.8	N.D.
21.02.2022	60	38	16	20	0.6	N.D.
25.02.2022	72	42	10	28	0.8	N.D.

Terms & conditions

The report for publication, erhibitation or an input dispute in furthering.

Text memple with the retained the 1th stays often because of text report actions often with equal table continues.
 This is for inflavourina on the party law united for above books?

Place 1 22 REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY



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

Notice & Address Of The Cashener		REPORT NO	UES/TR/21-22/08943		
то,		LAB REF NO	UES/21-22/AAQM/0	14646	
	RIES LIMITED, GARE	DATE OF SAMPLING	02/03/2022 to 28	7/03/2022	
PALMA - IV/5, MILL		DATE OF RECEIPT	03/03/2022 to 25	0/03/2022	
MINE, VILLAGE - MILUPARA,	DATE OF REPORT	02/04/2022			
BLOCK-TAMNAR, DISTT RAIGARH (C.G.) 496107		DATE OF ANALYSIS	START: 04/03/2022	END: 02/04/2022	
		SAMPLE DETAILS			
MONITORING FOR	AMBIENT AIR QUALITY MONITORING	CUSTOMER REF. NO. &	M/PO/SRV/2122/0049 DTD. 24-JULY-2021	γ,	
SAMPLING LOCATION	ETP AREA, KONDKEL		Macino-200-200-200-200-200-200-200-200-200-20		
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST	7	
SAMPLING PROCEDURE	AS PER METHOD REFERENCE				
SAMPLE QUANTITY/PACKING	FILTER PAPER (FM <sub>10</sub> ): 1X1 SO <sub>2</sub> : 30MLX1 NO. PVC BOTT. SUBBER BLADDER: 1X1 NO.				

Parameter	Method Reference	NAAQM Standard
Particulate Matter size less than 10 microns (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100
Particulate Matter size less than 2.5 microns (PM2.s)	IS 5182 (Part 24): 2019 CPCB Guidelines VolI	60
Sulphur Dioxide (80 <sub>2</sub> )	IS 5182 (Part 2): 2001, RA 2006 6 CPCB Guidelines VolI	80
Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	60
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0
Mercury (Hg)	EPA Method IO-5	

TEST REPORT						
Date of Sampling	PM <sub>10</sub> μg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m³	CO* mg/m³	Hg ng/m
02.03.2022	52	28	12	24	0.6	N.D.
07.03.2022	68	22	10	22	0.9	N.D.
11.03.2022	86	36	06	26	0.5	N.D.
14.03.2022	78	32	08	28	0.8	N.D.
18.03.2022	60	38	16	20	0.6	N.D.
21.03.2022	58	35	14	28	0.7	N.D.
25.03.2022	82	42	10	22	0.5	N.D.
28.03.2022	60	34	16	28	0.4	N.D.

Terms & conditions

The report for publication, advances or at legal enquire is formalism. That sample will be received for EE date after leave of test import unless This is for influenceme as the party has wided for allows twickly wide.

Plants

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report.....

# Annexure-8A

### CONTINOUS AMBIENT AIR QUALITY MONITORING SYSTEM (CAAQMS - 01 Nos.) AT GARE PALMA IV/4 COAL MINE, BANJIKHOL, RAIGARH





# Annexure-9



## HDD-272, PHASE III- NEAR JP CHOWK, RING ROAD NO - 2, KABIR NAGAR, RAIPUR, C.G. -492099 PH - 0771 - 4027777 / email - ultimatenviro@gmail.com

Name & Address Of The Customer TO,		REPORT NO		UES/TR/21-22/09967		
		LAB REF	NO	UES/21-22/AAQM/015899		
HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA,	DATE OF	SAMPLING	28/03/2022			
	DATE OF RECEIPT  DATE OF REPORT		29/03/2022 02/04/2022			
						POST -MILUPARA, DISTT RAIGARH (
		SAMPLE D	ETAILS			
MONITORING FOR	AMBIENT AIR QUALITY MONI	TORING	CUSTOMER RE	יידייות ברו אריי	N/PO/SRV/2122/0045, DTD. 24-JULY-2021	
SAMPLING LOCATION	PIT OFFICE AREA, BANKHET	7.A				
DURATION OF SAMPLING	24 HOURS	SAMPLE C	OLLECTED BY	LABORATORY CHE	MIST	
SAMPLING PROCEDURE	AS PER METHOD REFERENCE					
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM <sub>10</sub> ): 1X1 SO <sub>2</sub> : 30MLX1 NO. PVC BOTT	,	•			

			TEST	REPORT	
SR. NO.	PARAMETER	UNIT	RESULT	NAAQM STANDARD	METHOD REFERENCE
1	Arsenic (as As)	ng/m³	0.8	6.0	CPCB Guidelines (AAS Method)
2	Nickel (as Ni)	ng/m³	1.2	20	CPCB Guidelines (AAS Method)
3	Lead (as Pb)	μg/m³	0.04	1.0	IS 5182(Part 22):2004
4	Mercury (Hg)	ng/m³	N.D.		EPA Method IO-5
5	Chromium (as Cr)	μg/m³	N.D.		EPA Method IO-5
6	Cadmium (as Cd)	μg/m³	N.D.	- (	EPA Method IO-5
7	Ozone (O <sub>3</sub> )*	μg/m³	8.2	180	CPCB Guidelines Vol-I
8	Ammonia (NH <sub>3</sub> )	μg/m <sup>3</sup>	14.0	400	CPCB Guidelines Vol-I
9	Benzene (C <sub>6</sub> H <sub>6</sub> )	μg/m³	N.D.	5.0	IS 5182(Part 11):2006
10	Benzo (a) Pyrene	ng/m³	N.D.	1.0	IS 5182(Part 12):2014

Note: All results are on the basis of 24 hour sampling.

#### REMARKS: \* THESE RESULTS ARE ON THE BASIS OF 1 HOUR SAMPLING, N.D.: NOT DETECTED

#### Terms & conditions

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

RUBBER BLADDER: 1X1 NO.

- > 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.

THE STATE OF THE S

For ULTIMATE ENVIROLYTICAL SOLUTIONS

**AUTHORIZED SIGNATORY** 

REVIEWED BY

--End of the test report----



## HDD-272, PHASE III- NEAR JP CHOWK, RING ROAD NO - 2, KABIR NAGAR, RAIPUR, C.G. -492099 PH - 0771 - 4027777 | email - ultimatenviro@gmail.com

Name & Address Of The Custom	er	REP	ORT NO	UES/TR/21-22	/099	68
TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA – IV/4, COAL MINE,		LAB REF NO		UES/21-22/AAQM/015900		
		DAT	E OF SAMPLING	28/03/2022		
		DATE OF RECEIPT		29/03/2022		
VILLAGE – BANKHE	ITA,	DAT	OF REPORT	02/04/2022		
POST -MILUPARA, DISTT RAIGARH (	C.G.) 496107	DAT	E OF ANALYSIS	START:29/03/20	22	END:02/04/2022
	SAM	PLE	DETAILS			
MONITORING FOR	AMBIENT AIR QUALITY MONITORI	NG	CUSTOMER REF.	NO. & DATE		O/SRV/2122/0045, . 24-JULY-2021
SAMPLING LOCATION	ETP AREA, BANJIKHOL					
DURATION OF SAMPLING	24 HOURS	SAM	PLE COLLECTED B	Y LABORATOR	Y CH	EMIST
SAMPLING PROCEDURE	AS PER METHOD REFERENCE					
SAMPLE QUANTITY/PACKING	FILTER PAPER $(PM_{10})$ : 1X1 NO., $SO_2$ : 30MLX1 NO. PVC BOTTLE, RUBBER BLADDER: 1X1 NO.					

	TEST REPORT				
SR. NO.	PARAMETER	UNIT	RESULT	NAAQM STANDARD	METHOD REFERENCE
1	Arsenic (as As)	ng/m³	0.5	6.0	CPCB Guidelines (AAS Method)
2	Nickel (as Ni)	ng/m³	1.4	20	CPCB Guidelines (AAS Method)
3	Lead (as Pb)	μg/m³	0.06	1.0	IS 5182(Part 22):2004
4	Mercury (Hg)	ng/m³	N.D.	<b>–</b>	EPA Method IO-5
5	Chromium (as Cr)	μg/m³	N.D.		EPA Method IO-5
6	Cadmium (as Cd)	μg/m³	N.D.	-	EPA Method IO-5
7	Ozone (O <sub>3</sub> )*	μg/m³	6.8	180	CPCB Guidelines Vol-I
8	Ammonia (NH <sub>3</sub> )	μg/m³	20.2	400	CPCB Guidelines Vol-I
9	Benzene (C <sub>6</sub> H <sub>6</sub> )	μg/m³	N.D.	5.0	IS 5182(Part 11):2006
10	Benzo (a) Pyrene	ng/m³	N.D.	1.0	IS 5182(Part 12):2014

Note: All results are on the basis of 24 hour sampling.

#### REMARKS: \* THESE RESULTS ARE ON THE BASIS OF 1 HOUR SAMPLING, N.D.: NOT DETECTED

#### Terms & conditions

REVIEWED 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-----



## HDD-272, PHASE III- NEAR JP CHOWK, RING ROAD NO - 2, KABIR NAGAR, RAIPUR, C.G. -492099 PH - 0771 - 4027777 / email - ultimatenviro@gmail.com

Name & Address Of The Custom	ner	REPORT NO		UES/TR/21-22/09969		
TO, HINDALCO INDUSTRIES LIMITED,		LAB REF NO	0	UES/21-22/AAQM/015901		
		DATE OF SA	AMPLING	28/03/2022		
GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA,	DATE OF R	ECEIPT	29/03/2022			
	DATE OF REPORT  DATE OF ANALYSIS		02/04/2022 START:29/03/2022 END:02/04/2022			
POST -MILUPARA, DISTT RAIGARH (C.G.) 496107					END: 02/04/2022	
	\$	SAMPLE DE	TAILS			
MONITORING FOR	AMBIENT AIR QUALITY MONIT	TORING	CUSTOMER F	REF. NO. & DATE		D/SRV/2122/0045, 24-JULY-2021
SAMPLING LOCATION	OFFICE AREA, BANJIKHOL					
DURATION OF SAMPLING	24 HOURS	SAMPLE CO	LLECTED BY	LABORATORY CHE	MIST	
SAMPLING PROCEDURE	AS PER METHOD REFERENCE	···				
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM <sub>10</sub> ): 1X1 I SO <sub>2</sub> : 30MLX1 NO. PVC BOTTL RUBBER BLADDER: 1X1 NO.	•				

	TEST REPORT				
SR. NO.	PARAMETER	UNIT	RESULT	NAAQM STANDARD	METHOD REFERENCE
1	Arsenic (as As)	ng/m³	0.9	6.0	CPCB Guidelines (AAS Method)
2	Nickel (as Ni)	ng/m³	1.7	20	CPCB Guidelines (AAS Method)
3	Lead (as Pb)	μg/m³	0. <mark>05</mark>	1.0	IS 5182(Part 22):2004
4	Mercury (Hg)	ng/m³	N.D.	- 人	EPA Method IO-5
5	Chromium (as Cr)	μg/m³	N.D.		EPA Method IO-5
6	Cadmium (as Cd)	μg/m³	N.D.	_	EPA Method IO-5
7	Ozone (O <sub>3</sub> ) *	μg/m³	8.8	180	CPCB Guidelines Vol-I
8	Ammonia (NH <sub>3</sub> )	μg/m³	18.4	400	CPCB Guidelines Vol-I
9	Benzene (C <sub>6</sub> H <sub>6</sub> )	μg/m³	N.D.	5.0	IS 5182(Part 11):2006
10	Benzo (a) Pyrene	ng/m³	N.D.	1.0	IS 5182(Part 12):2014

Note: All results are on the basis of 24 hour sampling.

#### REMARKS: \* THESE RESULTS ARE ON THE BASIS OF 1 HOUR SAMPLING, 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) only.

REVIEWED 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

	Name & Address Of The Customer		UES/TR/21-22/09970 UES/21-22/AAQM/015902		
TO, HINDALCO INDUSTRIES LIMITED,		LAB REF NO			
		DATE OF SAMPLING	28/03/2022		
GARE PALMA – IV/4, COAL MINE, VILLAGE – BANKHETA,	DATE OF RECEIPT	29/03/2022			
	DATE OF REPORT	02/04/2022			
POST -MILUPARA, DISTT RAIGARH (	(C.G.) 496107	DATE OF ANALYSIS	START:29/03,	/2022	END: 02/04/2022
	S	AMPLE DETAILS			
MONITORING FOR	AMBIENT AIR QUALITY MONIT	CORING CUSTOMER REF.	. NO. & DATE	1 '	/SRV/2122/0045, 24-JULY-2021
SAMPLING LOCATION	OFFICE AREA, BANKHETA				
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY (	CHEMIS	T
SAMPLING PROCEDURE	AS PER METHOD REFERENCE				
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM <sub>10</sub> ): 1X1 I SO <sub>2</sub> : 30MLX1 NO. PVC BOTTL RUBBER BLADDER: 1X1 NO.				

	TEST REPORT				
SR. NO.	PARAMETER	UNIT	RESULT	NAAQM STANDARD	METHOD REFERENCE
1	Arsenic (as As)	ng/m³	0.4	6.0	CPCB Guidelines (AAS Method)
2	Nickel (as Ni)	ng/m³	1.8	20	CPCB Guidelines (AAS Method)
3	Lead (as Pb)	μg/m³	0.02	1.0	IS 5182(Part 22):2004
4	Mercury (Hg)	ng/m³	N.D.		EPA Method IO-5
5	Chromium (as Cr)	μg/m³	N.D.	-	EPA Method IO-5
6	Cadmium (as Cd)	μg/m³	N.D.	_	EPA Method IO-5
7	Ozone (O <sub>3</sub> ) *	μg/m³	10.0	180	CPCB Guidelines Vol-I
8	Ammonia (NH <sub>3</sub> )	μg/m³	21.2	400	CPCB Guidelines Vol-I
9	Benzene (C <sub>6</sub> H <sub>6</sub> )	μg/m³	N.D.	5.0	IS 5182(Part 11):2006
10	Benzo (a) Pyrene	ng/m³	N.D.	1.0	IS 5182(Part 12):2014

Note: All results are on the basis of 24 hour sampling.

#### REMARKS: \* THESE RESULTS ARE ON THE BASIS OF 1 HOUR SAMPLING, 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) only.

For

For ULTIMATE ENVIROLYTICAL SOLUTIONS

**AUTHORIZED SIGNATORY** 

REVIEWED BY

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

# Annexure-10



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

TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA - IV/4, COAL MINE, VILLAGE - BANKHETA, POST - MILUPARA, DISTT RAIGARH (C.G.) 496107		REPORT NO.  LAB REF NO.  DATE OF REPORT  DATE OF SAMPLING	UES/TR/21-22/3508  UES/21-22/N/6290-6299  01/11/2021  27/10/2021 to 28/10/2021
	(,	SAMPLE DETAILS	
MONITORING FOR	NOISE LEVEL MONITORING	7	
CUSTOMER REF. NO. 4 DATE	N/FO/SRV/2122/0045, DS	TD.:24-JULY-2021	
SAMPLING LOCATION	INSIDE COAL MINE & OUT	ISIDE COAL MINE (AS DESCRIE	NCD SELOW)
SAMPLE COLLECTED BY	LABORATORY CHEMIST		
SAMPLING PROCEDURE	MANUFACTURER'S INSTRUC	TION	

	T	EST RE	PORT		
LOCATION	II I SA II S	RESULT		LIMIT (INDUSTRIAL ZONE)	
	UNIT	DAY TIME	NIGHT TIME	DAY TIME	NIGHT TIME
OFFICE AREA, BANJIKHOL	dB(A)	55	42		
INCLINE ARRA, BANJIKHOL	dB(A)	46	38		70
BUNKER AREA, BANJIKHOL	dB(A)	48	36		
DG SET AREA, BANJIKHOL	dB(A)	52	44		
WEIGHBRIGE AREA, BANJIKHOL	dB(A)	60	48	75	
TRUCK PARKING AREA, BANJIKHOL	dB(A)	54	42		
OFFICE AREA, BANKHETA	dB(A)	68	48		
WEIGHBRIGE AREA, BANKHETA	dB(A)	56	44		
was a second	THE RESERVE	RESULT		LIMIT (RESI	DENTIAL ZONE)
LOCATION	UNIT	DAY	NIGHT TIME	DAY TIME	NIGHT TIME
Outside Plant					
BANJIHHOL VILLAGE (NEAR ANGANBADI)	dB(A)	50	36	55	45
BELJOR VILLAGE (NEAR MANBODH HOUSE)	dB(A)	46	39		,,,

#### REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- > The report for publication, arbitration or as legal dispute is forbidden.
- Test nample 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 aby QUITYO

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

21

-End of the test report--



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

TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA - IV/4, COAL MINE, VILLAGE - BANKHETA, POST - MILUPARA, DISTT RAIGARH (C.G.) 496107		REPORT NO.	UES/TR/21-22/04181  UES/21-22/N/07495-07503  01/12/2021			
		DATE OF REPORT				
		DATE OF SAMPLING	23/11/2021 to 24/11/2021			
		SAMPLE DETAILS				
MONITORING FOR	NOISE LEVEL MONITORING	NOISE LEVEL MONITORING				
CUSTOMER REF. NO. &	N/PO/SRV/2122/0045, DTD.:24-JULY-2021					
SAMPLING LOCATION	INSIDE COAL MINE & OUTSIDE COAL MINE (AS DESCRIBED BELOW)					
SAMPLE COLLECTED BY	LABORATORY CHEMIST					
SAMPLING PROCEDURE	MANUFACTURER'S INSTRUCTION					

TEST REPORT						
LOCATION	RESULT		LIMIT (INDUSTRIAL ZONE)			
	UNIT	DAY	NIGHT TIME	DAY TIME	NIGHT TIME	
OFFICE AREA, BANJIRHOL	dB(A)	54	40			
INCLINE AREA, BANJIKHOL	dB(A)	44	36			
BUNKER AREA, BANJIKHOL	dB(A)	46	34		70	
DG SET AREA, BANJIKHOL	dB(A)	50	42	7.5		
WEIGHBRIGE AREA, BANJIKHOL	dB(A)	58	46	75		
TRUCK PARKING AREA, BANJIKHOL	dB(A)	52	40			
OFFICE AREA, BANKHETA	dB(A)	66	46			
WEIGHBRIGE AREA, BANKHETA	dB(A)	54	42			
		RES	ULT	LIMIT (RESIDENTIAL ZONE)		
LOCATION	UNIT	DAY	NIGHT TIME	DAY TIME	NIGHT TIME	
Outside Plant						
BAMJIRHOL VILLAGE (NEAR ANGANDADI)	dB(A)	48	34	55	45	
BELJOR VILLAGE (NEAR MANBODH HOUSE)	dB(A)	44	38		45	

#### REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

The report for publication, arbitration or as legal shapute 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 (MACA) both.

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

-End of the test report-



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

TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA - IV/4, COAL MINE, VILLAGE - BANKHETA, POST - MILUPARA, DISTT RAIGARH (C.G.) 496107		LAB REF NO.  DATE OF REPORT  DATE OF SAMPLING	UES/TR/21-22/04921  UES/21-22/N/08760-08769  01/01/2022			
		SAMPLE DETAILS	22/12/2021 to 23/12/2021			
MONITORING FOR						
	NOISE LEVEL MONITORING					
CUSTOMER REF. NO. 6 DATE	M/PO/SRV/2122/0045, D1	D.:24-JULY-2021				
SAMPLING LOCATION	INSIDE COAL MINE & OUTSIDE COAL MINE (AS DESCRIBED BELOW)					
SAMPLE COLLECTED BY	LABORATORY CHEMIST					
SAMPLING PROCEDURE	MANUFACTURER'S INSTRUC	TION				

	T	EST RE	PORT			
LOCATION	Man 178	RESULT		LIMIT (INDUSTRIAL ZONE)		
	UNIT	DAY TIME	NIGHT TIME	DAY TIME	NIGHT TIME	
OFFICE AREA, BANJIKHOL	dB(A)	56	42			
INCLINE AREA, BANJIRHOL	dB(A)	46	38		70	
BUNNER AREA, BANJIKHOL	dB(A)	48	36			
DG SET AREA, BANJINHOL	dB(A)	52	44	2008		
WEIGHBRIGE AREA, BANJIKHOL	dB(A)	60	48	75		
TRUCK PARKING AREA, BANJIKHOL	dB(A)	54	42			
OFFICE AREA, MANNHETA	dB(A)	68	48			
WEIGHBRIGE ARKA, BANKHETA	dB(A)	56	44			
		RESULT		LIMIT (RESI	SIDENTIAL ZONE)	
LOCATION	UNIT	DAY	NIGHT TIME	DAY TIME	NIGHT TIME	
Outside Plant						
BANJIKHOL VILLAGE (NEAR ANGANBADI)	dB(A)	50	36	55	45	
BELJOR VILLAGE (NEAR MANBOON HOUSE)	dB(A)	46	40	HH.	45	

#### REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

REVIEWED BY

The report for publication, arbitration or as legal dispute in forbiddien.
 Test aample will be retained for 15 days after leave of lest report unless otherwise agreed with customs:
 This is for information as the party has maked for above (WAS) 00%.

-End of the test report-

AUTHORIZED SIGNATORY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

01/2022

10



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

Nome & Address of the Castomer  TO,  HINDALCO INDUSTRIES LIMITED,  GARE PALMA - IV/4, COAL MINE,  VILLAGE - BANKHETA,  POST - MILUPARA,  DISTT RAIGARH (C.G.) 496107		REPORT NO.  LAB REF NO.  DATE OF REPORT	UES/TR/21-22/06003  UES/21-22/N/010322-010331  02/02/2022					
		DATE OF SAMPLING 24/01/2022 to 25/01/2022						
The same		SAMPLE DETAILS						
MONITORING FOR	NOISE LEVEL MONITORING	1						
CUSTOMER REF. NO. 6 DATE	N/PO/SRV/2122/0045, D	N/FO/SRV/2122/0045, DTD.:24-JULY-2021						
SAMPLING LOCATION	INSIDE COAL MINE & OUT	INSIDE COAL MINE & OUTSIDE COAL MINE (AS DESCRIBED BELOW)						
SAMPLE COLLECTED BY	LABORATORY CHEMIST							
SAMPLING PROCEDURE	MANUFACTURER'S INSTRUCTION							

	TI	EST REF	PORT			
		RES	ULT	LIMIT (INDUSTRIAL ZONE)		
LOCATION	UNIT	DAY TIME	NIGHT TIME	DAY TIME	NIGHT TIME	
OFFICE AREA, BANJIKHOL	dB(A)	50	46			
INCLINE AREA, BANJIKHOL	dB(A)	52	42			
BUNKER AREA, BANJIRHOL	dB(A)	40	40		70	
DG SET AREA, BANJINGOL	dB(A)	54	48	75		
WEIGHBRIGE AREA, BANJIKHOL	dB(A)	66	50	/5		
TRUCK PARKING AREA, BANJIKHOL	dB(A)	58	46			
OFFICE AREA, BANKHUTA	dB(A)	60	46			
WEIGHBRIGE AREA, BANKHETA	dB(A)	52	40			
THE RESERVE OF THE PERSON NAMED IN	.=	RES	BULT	LIMIT (RES	DENTIAL ZONE)	
LOCATION	UNIT	DAY TIME	NIGHT TIME	DAY TIME	NIGHT TIME	
Outside Plant						
BANJIKHOL VILLAGE (NEAR ANGANBADI)	dB(A)	48	32	55	45	
BELJOR VILLAGE (NEAR MANBODE HOUSE)	dB(A)	44	36			

#### 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.

REVIEWED BY FOULTIMATE ENVIROLYTICAL SOLUTIONS

FOULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY



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

TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA - IV/4, COAL MINE, VILLAGE - BANKHETA, POST - MILUPARA, DISTT RAIGARH (C.G.) 496107		REPORT NO.	UES/TR/21-22/07931  UES/21-22/N/013115-013124  01/03/2022				
		DATE OF REPORT					
		DATE OF SAMPLING	24/02/2022 to 25/02/2022				
		SAMPLE DETAILS					
MONITORING FOR	NOISE LEVEL MONITORING						
CUSTCHER REF. NO. 6 DATE	N/PO/SRV/2122/0045, D1	N/PO/SRV/2122/0045, DTD.:24-JULY-2021					
SAMPLING LOCATION	INSIDE COAL MINE & OUTSIDE COAL MINE (AS DESCRIBED BELOW)						
SAMPLE COLLECTED BY	LABORATORY CHEMIST						
SAMPLING PROCEDURE	MANUFACTURER'S INSTRUCTION						

	TI	EST REF	PORT	7,44	
LOCATION		RESULT		LIMIT (INDUSTRIAL ZONE)	
	UNIT	DAY	NIGHT TIME	DAY TIME	NIGHT TIME
OFFICE AREA, BANJIKROL	dB(A)	57	44		
INCLINE AREA, BANJIRHOL	dB(A)	49	40		70
BUNKER AREA, HANJIKHOL	dB(A)	54	38		
DG SET AREA, BANJIKHOL	dB(A)	56	46	75	
HETGEBRIGE AREA, BANJIKKOL	dB(A)	59	52	75	
TRUCK PARKING AREA, BAMJINGOL	dB(A)	54	44		
OFFICE AREA, BANKURTA	dB(A)	55	42		
MEZGHURZGE AREA, HANKHETA	dB(A)	58	44		
	RESULT		BULT	T LIMIT (RESIDEN	
LOCATION	UNIT	DAY	NIGHT TIME	DAY TIME	NIGHT TIME
Outside Plant					
BAHJIKHOL VILLAGE (MEAR ANGANBADI)	dB(A)	46	36	55	45
BELJOR VILLAGE (NEAR MANBODE HOUSE)	dB(A)	42	34	833	

#### 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 leave of test report unless otherwise agreed with customer.

This is for information as the party has asked for above testill poly.

REVIEWED BY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

AUTHORIZED SIGNATORY

End of the test report-



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

TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA - IV/4, COAL MINE, VILLAGE - BANKHETA, POST - MILUPARA, DISTT RAIGARH (C.G.) 496107		REPORT NO.	UES/TR/21-22/08938				
		LAB REF NO.	UES/21-22/N/014631-014640				
		DATE OF REPORT	02/04/2022 28/03/2022 to 29/03/2022				
		DATE OF SAMPLING					
		SAMPLE DETAILS					
MONITORING FOR	NOISE LEVEL MONITORING	7					
CUSTOMER REF. NO. &	N/PO/SRV/2122/0045, DI	N/PO/SWV/2122/0045, DTD.:24-JULY-2021					
SAMPLING LOCATION	INSIDE COAL MINE & OUT	INSIDE COAL MINE & OUTSIDE COAL MINE (AS DESCRIBED RELOW)					
SAMPLE COLLECTED BY	LABORATORY CHEMIST	(NO DESCRIP	EU NELOW)				
SAMPLING PROCEDURE	MANUFACTURER'S INSTRUC	one and					

	T	EST RE	PORT			
LOCATION	RESULT		LIMIT (INC	OUSTRIAL ZONE)		
	UNIT	DAY TIME	NIGHT	DAY TIME	NIGHT TIME	
OFFICE AREA, BANJINHOL	dB(A)	66	50			
INCLINE AREA, BANJIKHOL	dB(A)	62	56			
BUNKER AREA, BANJIKHOL	dB(A)	64	52	75	70	
DG SET AREA, BANJIKHOL	dB(A)	62	54			
WEIGHERIGE AREA, BANJIKHOL	dB(A)	68	58			
TRUCK PARKING AREA, BANJIKNOL	dB(A)	66	56			
OFFICE AREA, BANKHETA	dB(A)	62	58			
MEIGHBRIGE AREA, BANKHETA	dB(A)	65	54			
LOCATION		RESULT		LIMIT (RESI	DENTIAL ZONE)	
4000年6月6年6日	UNIT	DAY	NIGHT TIME	DAY TIME	NIGHT TIME	
Outside Plant			111116	THE PERSON NAMED IN	The second second	
BANJIKHOL VILLAGE (NEAR ANGANBADI)	dB(A)	52	42			
MELJOR VILLAGE (NEAR MANBODH HOUSE)	dB(A)	50	40	55	45	

#### REMARKS: RESULTS ARE AS ABOVE

REVIEWED BY

Terms & conditions

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

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

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

-End of the test report-

32/04/2012 AUTHORIZED SIGNATORY

For ULTIMATE ENVIROLYTICAL SOLUTIONS

# Annexure-10A

#### Annexure - 10A



ETP of capacity 50 m3/day at Bankheta
- GP IV/4 Coal Mine

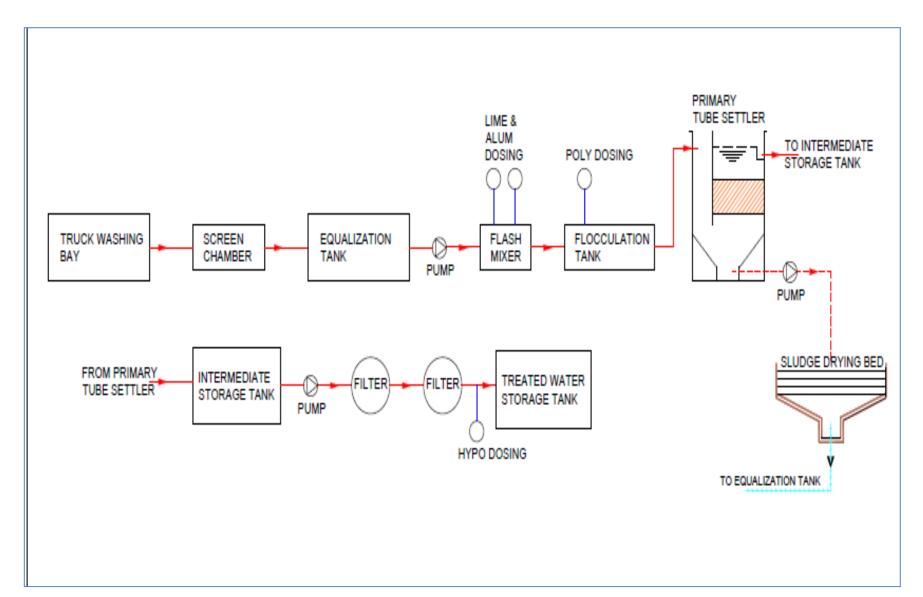


Dumper/HEMM Washing Bay at Bankheta – GP IV/4 Coal Mine

### Process Flow Diagram of ETP







## Annexure-10B



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

	iame & Address Of The Gustomer			UES/TR/	21-22/08934	1		
HINDALCO INDUSTRIES LIMITED,			LAB REF NO	UES/21-22/W/014627		7		
	•		ALMA – IV/4, COAL MINE,		DATE OF SAMPLING	28/03/2	022	
VILLAGE - BANKHE	DATE OF RECEIPT	29/03/2022						
DISTT RAIGARH (C.G.) 496107			DATE OF REPORT 02/04/20 DATE OF ANALYSIS START:29		/2022			
					9/03/2022 END: 02/04/2022			
		SAMPL	E DETAILS		A A A A A			
SAMPLE TYPE	WASTE WATER		ORDER /REFERENCE:		N/PO/SRV/2122/0045, DTD. JULY-2021			
CUSTOMER SAMPLE ID	CUSTOMER SAMPLE ID ETP INLET & OUTLET, BANKHETA		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	(PART I):1987 RA 2003; APHA . 2012, 1060-B, 1-39		QUANTITY RECEIVED				

#### Report No. 08934

TEST REPORT								
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	BHANKETA ETP INLET	BANKHETA ETP OUTLET		
1	Colour	Hazen	APHA 22 <sup>nd</sup> Ed. 2012,2120-B,2-6	See 6 of Annexure-I	4.5	<1.0		
2	Odour	-	APHA 22 <sup>nd</sup> Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable	Agreeable		
3	Temperature	°C	APHA 22 <sup>nd</sup> Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25.8	25.2		
4	нα		APHA 22 <sup>nd</sup> Ed.2012,4500-H <sup>+</sup> -B,4-92	5.5 to 9.0	7.64	7.18		
5	Total Residual Chlorine	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-C1- G,4-69	1.0	N.D.	N.D.		
6	Total Suspended Solids	mg/L	APHA 22 <sup>nd</sup> Ed.2012,2540- D, 2-66	100	182.0	22.0		
7	Dissolved Phosphate (as P)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-P-C,4-153	5.0	0.62	0.32		
8	Fluoride (as F)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,4500-F-B &D,4-84 & 87	2.0	0.8	0.4		
9	Lead (as Pb)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	0.1	N.D.	N.D.		
10	Zinc (as Zn)	mg/L	АРНА 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	5.0	0.41	0.08		
11	Copper (as Cu)	mg/L	АРНА 22 <sup>nd</sup> Ed.2012,3111-B, 3- 18	3.0	N.D.	N.D.		
12	Cadmium (as Cd)	mg/L	АРНА 22 <sup>nd</sup> Ed.2012,3500-Cd, 3- 105	2.0	N.D.	N.D.		
13	Mercury (as Hg)	mg/L	АРНА 22 <sup>nd</sup> Ed.2012,3112-B, 3- 23	0.01	N.D.	N.D.		
14	Arsenic (as As)	mg/L	АРНА 22 <sup>nd</sup> Ed.2012,3114-С, 3- 38	0.2	N.D.	N.D.		
15	Selenium (as Se)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3114-C, 3-38	0.05	N.D.	N.D.		
16	Total Chromium (as Cr)	mg/L	APHA 22 <sup>nd</sup> Ed.2012,3500-Cr- B,3-69	2.0	N.D.	N.D.		



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

Report No. 08934

TEST REPORT								
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	BHANKETA ETP INLET	BANKHETA ETP OUTLET		
17	Chemical Oxygen Demand (COD)	mg/L	АРНА 22 <sup>nd</sup> Ed.2012, 5520-В, 5- 17	250	86.0	24.0		
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025 (Part 44):1993, RA 2003	30	12.8	4.6		
19	Oil & Grease	mg/L	IS 3025 (Part 39):1991,RA 2003	10	N.D.	N.D.		
20	Phenolic Compounds (as $C_6H_5OH$ )	mg/L	IS 3025 (Part 43):1992, RA 2003	1.0	N.D.	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 test(s) only.

For ULTIMATE ENVIROLYTICAL SOLUTIONS

**AUTHORIZED SIGNATORY** 

REVIEWED BY

-End of the test report-

## Annexure-11



### छत्तीसगढ़ पर्यावरण संरक्षण मंडल

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

क्रमांक **239**%/ मुख्या. / वैज्ञा. / छ.ग.प.सं.मं. / 2021 नवा रायपुर अटल नगर, दिनांक 17/8 / 2021 प्रति,

श्री अनुराग श्रीवास्तव,

पार्टनर,

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 क्रमांक UES/2021-22/0042, दिनांक 31 / 07 / 2021.
- 2. मंडल मुख्यालय का पत्र क्रमांक 5357, दिनांक 24/09/2019.
- 3. 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 अनुक्रम 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।

C.G. Environment Conservation Board Paryawas Bhainan, North Block, Sec-19 Atal Nagar, Distt-Rajour (C.G.) 492002

सदस्य सचिव

छतीसगढ़ पर्यावरण संरक्षण मंडल, नवा रायपुर अटल नगर, जिला–रायपुर (छ.ग)

पृ.क्रमांक प्रतिलिपिः— /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 हेतु प्रेषित।

सदस्य सचिव

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

## 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 61<sup>st</sup> 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 (NO<sub>2</sub>), Sulphur dioxide (SO<sub>2</sub>), Total Suspended particulate matter, Respirable suspended particulate matter (PM<sub>10</sub>), 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.
- 5. 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.
- 2. Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhawan, North Block, Sector-19, Atal Nagar, Dist-Raipur, Chattisgarh.
- 3. 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 - 12

### Environmental Expenditure Details for FY 2021-22 (October 2021 to March 2022)

#### M/s Hindalco Industries Limited, Gare Palma Mines IV/4

Particulars	Amount (Lakh)		
Water Quality Management	17.25		
Air Quality Management	50.51		
Plantation, Green Belt Development	0.09		
Others	1.89		
Total	69.74		