



HIL/GP-IV/5/ENV/ESR/22-23/174

Date: 08.09.2023

The Member Secretary,
Chhattisgarh Environment Conservation Board,
Paryawas Bhawan, North Block Sector-19,
Naya Raipur Chhattisgarh - 490099.

Sub.: Submission of Environmental Statement Report of the 1 MTPA Under Ground Captive Coal Mine, Gare Palma IV/5 Coal Mines of Hindalco Industries Limited, Village – Milupara, Tehsil – Tamnar, District – Raigarh, Chhattisgarh.

Ref. Consent under section 25 of the Water (Prevention and control of pollution) Act, 1974 & Consent under section 21 of the Air (Prevention and control of pollution) Act, 1981 no. 9013/TS/CECB/2023, Naya Raipur, dated 27/03/2023.

Dear Sir,

With reference to above subject we are submitting herewith the **Environmental Statement Report** in the prescribed format (Form - V) in respect of the **1 MTPA Under Ground Captive Coal Mine, Gare Palma IV/5 Coal Mine of M/s Hindalco Industries Limited, Village – Milupara, Tehsil – Tamnar, District – Raigarh, Chhattisgarh** for the Financial Year **2022 -23**.

Receipt of the statement may kindly be acknowledged.

Thanking you,

Yours faithfully,
For **Hindalco Industries Limited**,


Deepak Prasad Lanka
(Authorized Signatory – GP IV/4 & GP IV/5 Coal Mine)

Encl.: As above

- CC:**
- 1. The Integrated Regional Office, Ministry of Environment Forests & Climate Change (MoEF & CC) Aranya Bhawan, North Block, Sector – 19, Naya Raipur, Atal Nagar, Chhattisgarh, 492002**
 - 2. The Addl. Director (Monitoring Cell), Ministry of Environment, Forest & Climate Change, Paryavaran Bhawan, Aliganj, Jorbagh Road New Delhi – 110003.**
 - 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. Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, New Delhi - 110032**
 - 5. Regional Officer, Chhattisgarh Environment Conservation Board (CECB), T. V. Tower Road, Raigarh (C.G.)**

Hindalco Industries Limited

Gare Palma Mines (IV/4 & IV/5), Vill & Po: Milupara , Tehsil: Tamnar Dist: Raigarh- 496107 , Chhattisgarh
T: +91 7762 228212, Website : www.hindalco.com E mail : hindalco@adityabirla.com
Registered Office : Ahura Centre, 1st Floor, B Wing, Mahakali Caves Road Andheri (East) , Mumbai 400093, India
T: + 912266917000 | Fax: + 912266917001
Corporate ID No: L27020MH1958PLC011238

FORM V

(See rule 14 of Environmental Protection Act, 1986)

Environmental Statement for the financial year 1st April -2022 to 31st March 2023.

PART A

(i)	Name and address of the owner/occupier of the industry operation or process.	Sh. Govind Kumar (Mines Agent), Gare Palma IV/5 Coal Mine of M/s Hindalco Industries Limited, Village – Milupara, Tehsil – Tamnar, District – Raigarh, Chhattisgarh 496107
(ii)	Industry category Primary – (STC Code) Secondary - (STC Code)	Primary
(iii)	Production Capacity – Units -	Coal – 1.0 MTPA
(iv)	Year of establishment	Coal Mine vested to Hindalco Industries Limited vide order no. 104/13/2015/NA dated 23 rd March 2015. The EUPs are as follow- 1. CPP (900 MW), Lapanga, Sambalpur, Odisha 2. CPP (467.5 MW), Hirakud, Sambalpur, Odisha
(v)	Date of the last environmental statement submitted	03.09.2022 for FY 2021- 22

PART B

(1) Water consumption M3/day: For the Period April 2022 to March 2023

(i)	Process	350
	Cooling	
(ii)	Domestic	410
(iii)	Irrigation & Agriculture use (Community Supply not for drinking purpose)	4901
	Total	5661

S. No.	Name of Product	Process water consumption per unit of product output	
		During the Previous financial year (2021 - 22)	During the current financial year (2022 - 23)
(1)	Coal	NA	NA

This is a coal mine and there is no processing / cleaning of coal is being done.

(2) Raw material consumption

S. No.	Name of Raw material	Name of product	Consumption of raw material per unit	
			During the Previous financial year (2021 - 22)	During the current financial year (2022 - 23)
1.	NA	Coal production for FY 2022 -23 : 00.00 Million Metric Ton (Gare Palma IV/5 Coal mine is not in operation since December 2019)	NA	NA

Industry may use codes in disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw material used.

PART C

**Pollution discharged to environment/ unit of output.
(Parameter as specified in the consent issued)**

S. No.	Pollution	Quantity of pollutants discharged (mass/day)	Concentrations of pollutants in discharges (mass/volume)	Percentage of variation from prescribed standards with reasons	
1	Water	No Discharge	No Discharge	<p align="center">No Variation</p> <p>05 Nos. of settling pond & 02 nos of ETP (Capacity 200 m³ / Hr Each) along with Lamella clarifier and chemical dosing arrangement have been established for the treatment of mine seepage water. (Photographs attached as <u>Annexure-1 -</u>)</p> <p>02 Nos. of RO plants has been installed for supplying the pure & safe water at mines office & other areas in & around the mine premises for drinking purpose. Remaining water from outlet of ETPs are being used by the community for irrigation & agriculture purpose (not for drinking purpose). (Photographs attached as <u>Annexure -2</u>)</p> <p>Also provided 50 m³ /day capacity sewage treatment plant to treat the sewage water generated from the domestic facilities i.e. office bathrooms, toilets etc. and the treated water is being utilized/reused for the dust separation & greenbelt development activities. (Photographs attached as <u>Annexure-3</u>)</p>	
2	Air	<p>The ambient air quality in the mining lease area conforms to the standard prescribed by CPCB as per NAAQS – 2009. As per the monitoring reports submitted by CECB & MoEF & CC approved & NABL accredited Laboratory, the concentration of ambient air quality parameters varies in the following ranges throughout the year conforming the standard-</p> <p>AAQM Report attached as <u>Annexure - 4</u></p>			
	Parameters	Pollutant Concentration	Standards (NAAQS - 2009)	Variation from prescribed standards	
	2(i)	PM10	51 – 64 (Average : 58)	100	No variation
	2(ii)	PM2.5	24 – 35 (Average : 29)	60	No variation
	2(iii)	SO2	9 – 17 (Average : 13)	80	No variation
	2(iv)	NOx	21 – 29 (Average : 25)	80	No variation
	2(v)	CO	0.31 – 0.87 (Average : 0.59)	4	No variation

PART D

Hazardous Wastes.

(As specified under Hazardous Wastes (Management and Handling Rules 1989))

S. No.	Hazardous Wastes	Total Quantity (kg)	
		During the previous financial year (2021 - 22)	During the current financial year (2022 - 23)
a	From process	Generated: 800 kg. Used Oil (Category - 5.1), 00 kg Waste/Residue containing Oil (Category - 5.2), 00 kg Contaminated Cotton Waste/Other Cleaning Material (Category - 33.2)	Generated: 180 kg of Used Oil (Category - 5.1), 04 kg Waste/Residue containing Oil (Category - 5.2), 01 kg Contaminated Cotton Waste/Other Cleaning Material (Category - 33.2) A submitted copy of Annual Return in Form – 4 for the FY Year 2022- 23 to RO, CECB, Raigarh under Hazardous and other waste (Management and Trans boundary Movement) Rules, 2016 and subsequent amendment for Gare Palma IV/5 is attached a <u>Annexure - 5</u> Due to small quantity of HW category, 5.1, 5.2 & 33.2 no recyclers wise to lift it from the mine site, so the quantity is stored in HIL Hazardous Waste storage site in a safe manner for further disposal.
b	From pollution control facilities	Nil	Nil

PART E

Solid Wastes

S. No.	Solid Waste	Total quantity	
		Previous financial Year (2021 - 22)	Current financial year (2022 - 23)
A	From process	NA	NA
B	From pollution control facility	NA	NA
C	Quantity recycled or re- utilizes within the unit		
(i)		NA	NA
(ii)	Sold	NA	NA
(iii)	Disposed	NA	NA

Gare Palma IV/5 is underground coal mine producing ROM coal. There is no processing / cleaning is being done. Thus no solid waste generated.

PART F

<p>Please specify the characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes</p>	<p>Characteristics of Used Oil (Cat. 5.1)</p> <p>A. Physical</p> <ol style="list-style-type: none">1. State - Liquid/ Semi Liquid.2. Density@ 25 °C gm/ml – 0.8593. Flash Point °C - 46.5 <p>B Chemical</p> <ol style="list-style-type: none">1. Sulphur (%by mass) - 1.952. Total Ash (% by mass) - 0.277 <p>Characteristics of Waste/Residue containing Oil (Cat. 5.2)</p> <p>A. Physical</p> <ol style="list-style-type: none">1. State - Liquid/ Semi Liquid.2. Density@ 25 °C gm/ml – 0.5543. Flash Point °C - 44.1 <p>B Chemical</p> <ol style="list-style-type: none">1. Sulphur (%by mass) - 1.232. Total Ash (% by mass) - 0.258 <p>Characteristics of Contaminated Cotton Rags/Other cleaning material (Cat. 33.2)</p> <p>A. Physical</p> <ol style="list-style-type: none">1. State - Liquid/ Semi Liquid.2. Density@ 25 °C gm/ml - 0.2413. Flash Point °C - 39.3 <p>B Chemical</p> <ol style="list-style-type: none">1. Sulphur (%by mass) - 0.922. Total Ash (% by mass) - 0.225 <p>Used Oil (HW Cat 5.1), Waste/ Residue containing Oil (Category - 5.2) & Contaminated Cotton Rags/Other cleaning material (Cat. 33.2) which is generated from the HEMM/ equipment during scheduled maintenance is collected and stored securely in barrels after due segregation and kept over an impervious floor under specifically designed HW storage shed.</p> <p>Analysis report attached as Annexure - 6</p>
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PART G

<p>Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production</p>	<p>We have adopted eco-friendly technologies in mining operation and measures are taken as- construction of ETPs, STP & RO Plants, Fixed type & Truck mounted water sprinklers, Green belt development, installation of Automatic ground water level recorder with telemetric provision, Automatic weather monitoring station with telemetric, DWFM with telemetric provision, installation of LED display board to display the monitoring data of environmental quality parameters of GP Mines at the entrance of the Mine main gate etc.</p>
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PART H

Additional measures/investment proposal for environmental protection abatement of pollution, prevention of pollution.

For strengthening of environmental protection measures like Air pollution control measure, Water pollution control measure, water sprinkling, plantation etc. The Environmental expenditure details enclosed as Annexure-7.

PART I

Any other particulars for improving the quality of the environment

**Company have planted approx. 52104 saplings in mines area details enclosed as Annexure -8 Company have further plan for phase wise plantation in available open/available area. Company is providing safety training to all working staff before assignment of job in V.T. Center that is established by the company inside the mine premises.
Personal Protective equipment's- Like Nose mask, Safety Helmet, Earmuff etc. have been provided to all workers that are working in mines.
To avoid fugitive dust emission regular water sprinkling on road is being done. Company is being provided job specific PPEs like noise protective equipment – earplug & ear muff to worker engaged in high noise area.**

Annexure - 1

Settling Pond (1, 2, 3, 4 & 5), ETP, WTP & STP at GP IV/5 CM



Effluent Treatment Plant (ETP) – 200 x 2 CuM per Hours



Annexure - 2

Treatment Plant



Latitude: 22.161863
Longitude: 83.531173
Accuracy: 600.0 m
Time: 19-09-2022 13:34
Note: Location : WTP 1, Kondkel

Water Treatment Plant (WTP) - 5 x 5 CuM per Hours



Latitude: 22.162275
Longitude: 83.533682
Elevation: 275.74±12 m
Accuracy: 10.2 m
Time: 09-19-2022 13:32
Note: RO Plant Kondkel

Reverse Osmosis Plant (RO) - 2 x 2 CuM per Hours

Annexure – 3

Sewage Treatment Plant



Sewage Treatment Plant capacity of 50 M3/day

Annexure - 4

Ambient Air Quality Monitoring Report of GP IV/5 Coal Mine of Hindalco Industries Limited, Raigarh (CG)

S N	Locations	Param eter	Standards	2022-23												Average
				April	May	June	July	August	September	October	November	December	January	February	March	
1	MAIN OFFICE AREA MILUPARA	PM ₁₀	100 µg/m ³	74.00	74.25	77.25	68.38	59.25	48.50	49.50	49.00	48.88	48.25	48.50	47.88	57.80
		PM _{2.5}	60 µg/m ³	36.00	37.50	38.00	32.25	27.50	26.75	26.00	26.88	26.63	25.75	26.75	26.63	29.72
		SO ₂	80 µg/m ³	11.38	11.38	11.50	10.75	10.50	11.00	10.63	12.25	12.25	12.13	12.13	12.63	11.54
		NO _x	80µg/m ³	24.38	29.25	27.75	27.88	26.00	24.00	24.50	26.25	26.13	25.00	25.75	26.00	26.07
		CO	4 mg/m ³	0.51	0.55	0.56	0.54	0.54	0.51	0.55	0.68	0.69	0.61	0.65	0.61	0.58
2	STAFF QUARTER MILUPARA	PM ₁₀	100 µg/m ³	78.25	77.00	72.50	69.00	60.75	47.25	47.63	47.88	47.00	46.50	46.75	47.13	57.30
		PM _{2.5}	60 µg/m ³	33.00	34.25	36.00	33.75	25.50	24.50	24.25	25.50	24.88	25.25	24.75	24.63	28.02
		SO ₂	80 µg/m ³	12.25	11.00	13.75	12.13	11.88	12.38	12.88	14.38	13.50	13.00	13.50	13.50	12.84
		NO _x	80µg/m ³	25.13	24.25	24.00	25.63	24.25	23.50	24.88	24.00	23.00	22.50	23.13	23.00	23.94
		CO	4 mg/m ³	0.56	0.56	0.51	0.60	0.50	0.55	0.59	0.75	0.64	0.58	0.60	0.63	0.59
3	HIL COLONY KONDKEL	PM ₁₀	100 µg/m ³	72.75	73.25	70.75	67.50	60.75	47.75	49.00	47.13	46.88	45.88	46.38	46.13	56.18
		PM _{2.5}	60 µg/m ³	28.00	34.25	36.00	30.00	26.50	23.25	25.50	27.50	25.63	25.88	25.50	25.38	27.78
		SO ₂	80 µg/m ³	13.50	11.25	13.38	13.00	11.25	13.13	15.00	16.38	16.00	15.50	15.50	15.38	14.10
		NO _x	80µg/m ³	26.00	27.25	27.50	25.75	25.00	25.00	25.13	23.63	23.75	23.38	23.50	23.63	24.96
		CO	4 mg/m ³	0.53	0.54	0.53	0.55	0.46	0.55	0.58	0.69	0.65	0.64	0.65	0.65	0.58
4	ETP AREA KONDKEL	PM ₁₀	100 µg/m ³	75.75	79.75	76.88	67.25	57.50	55.25	58.75	50.00	48.63	48.38	47.88	48.38	59.53
		PM _{2.5}	60 µg/m ³	37.00	39.25	38.75	36.00	28.00	26.25	28.00	28.25	27.13	26.38	26.63	26.63	30.69
		SO ₂	80 µg/m ³	10.88	11.13	14.88	13.50	12.75	13.38	15.50	16.13	15.50	15.00	15.50	15.75	14.16
		NO _x	80µg/m ³	25.25	24.88	24.00	24.75	24.25	24.00	25.13	26.50	24.63	24.00	24.75	24.63	24.73
		CO	4 mg/m ³	0.55	0.63	0.51	0.65	0.54	0.58	0.61	0.70	0.63	0.64	0.60	0.61	0.60

Annexure -5



HIL/ENV/GP-IV/5/HWM/2023/84

07th June, 2023

The Regional Officer,
Chhattisgarh Environment Conservation Board
TV Tower road,
Raigarh (CG)

Sub. Submission of Annual Return in Form – 4 under Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016 and subsequent amendment for Gare Palma IV/5 UG Coal Mine of M/s Hindalco Industries Limited, Village – Milupara, Tehsil – Tamnar, Distt. – Raigarh (CG) for the Year 2022- 23.

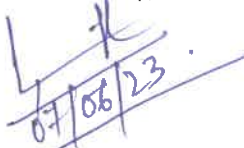
Ref.: HW Authorization Letter No. – 7545/HSMD/HO/CECB/2023, dated 25.01.2023.

Dear Sir,

We are submitting herewith the Annual Return in **Form – 4** under Hazardous and other waste (Management and Trans boundary Movement) Rules, 2016 and subsequent amendment for **Gare Palma IV/5** Underground Coal Mine of M/s Hindalco Industries Limited, Village – Milupara, Tehsil – Tamnar, Distt. – Raigarh (CG) for the **Financial Year 2022- 23**.

Thanking you,

Yours faithfully,


07/06/23

Govind Kumar
Mine Agent – Gare Palma Coal Mine
Hindalco Industries Limited



Enclosed: Form - 4 (FY - 2022- 23)

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

Hindalco Industries Limited

Gare Palma Mines (IV/4 & IV/5), Vill & Po: Milupara , Tehsil: Tamnar Dist: Raigarh- 496107 , Chhattisgarh

T: +91 7762 228212, Website : www.hindalco.com E mail : hindalco@adityabirla.com

Registered Office : Ahura Centre, 1st Floor, B Wing, Mahakali Caves Road Andheri (East) , Mumbai 400093, India

T: + 912266917000 | Fax: + 912266917001

Corporate ID No: L27020MH1958PLC011238

FORM 4

[See rules 6(5), 13(8), 16(6) and 20 (2)]

FORM FOR FILING ANNUAL RETURNS

[To be submitted to State Pollution Control Board by 30th day of June of every year for the preceding period **April 2022 to March 2023**]

1. Name and address of facility: **Gare Palma IV/5 Under Ground Captive Coal Mine (1 MTPA) of M/s Hindalco Industries Limited, Village – Milupara, Tehsil – Tamnar, District – Raigarh, Chhattisgarh (C.G.)**
2. Authorisation No. and Date of issue: **HW Authorization Letter No. – 7545/HSMD/HO/CECB/2023, Dated 25.01.2023.**
3. Name of the authorised person and full address with telephone, fax number and e-mail:
**Sh. Govind Kumar, (Agent – GP Mines)
Gare Palma IV/5 UG Coal Mine of M/s Hindalco Industries Limited,
Village – Milupara, Tehsil – Tamnar, District – Raigarh, Chhattisgarh (C.G.)
Mobile No.: 9111024922
E-mail – govind.kumar@adityabirla.com**
4. Production during the year (product wise), wherever applicable:

Coal Production for the 2022 – 23

Unit	Coal (Metric Tons)	
GP IV/5 Coal Mine	UG	0
Total		0

Part A. To be filled by hazardous waste generators

1. Total quantity of waste generated category wise: -

Type of Hazardous Waste	Quantity (in Metric Tons per Annum)
Used Oil (HW Category – 5.1)	0.180 (180 Kg)
Waste / Residues containing Oil (HW Category – 5.2)	0.004 (4 Kg)
Contaminated Cotton Rags or Other cleaning material (33.2)	0.001 (1 Kg)

2. Quantity dispatched:
 - (i) To disposal facility: Nil
 - (ii) To recycler or co-processors or pre-processor: Nil
 - (iii) Others: Nil
3. Quantity utilised in-house, if any – Nil

4. Quantity in storage at the end of the year –

Type of Hazardous Waste	Quantity (in Metric Tons per Annum)
Used Oil (HW Category – 5.1)	0.180 (180 Kg)
Waste / Residues containing Oil (HW Category – 5.2)	0.034 (34 Kg)
Contaminated Cotton Rags or Other cleaning material (33.2)	0.016 (16 kg)

Due to small quantity of HW category 5.1, 5.2 & 33.2 no recyclers wise to lift it from the mine site, so the quantity is stored in HIL Hazardous Waste storage site in a safe manner for further disposal.

Part B. To be filled by Treatment, storage and disposal facility operators - Not Applicable.


1. Total quantity received –
2. Quantity in stock at the beginning of the year -
3. Quantity treated –
4. Quantity disposed in landfills as such and after treatment –
5. Quantity incinerated (if applicable) -
6. Quantity processed other than specified above -
7. Quantity in storage at the end of the year –

Part C. To be filled by recyclers or co-processors or other users - Not Applicable.

1. Quantity of waste received during the year –
 - (i) Domestic sources
 - (ii) imported (if applicable)
2. Quantity in stock at the beginning of the year –
3. Quantity recycled or co-processed or used –
4. Quantity of products dispatched (wherever applicable) –
5. Quantity of waste generated –
6. Quantity of waste disposed –
7. Quantity re-exported (wherever applicable)-
8. Quantity in storage at the end of the year -

Date: 07.06.2023

Place: Raigarh


Signature of the Occupier

Annexure -6



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

Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

<i>Name & Address Of The Customer</i>		REPORT NO.	UES/TR/22-23/09187
TO,		LAB REF NO.	UES/22-23/W/017612
HINDALCO INDUSTRIES LIMITED, GARE		DATE OF SAMPLING	23/03/2023
PALMA - IV/5, MILUPARA U/G COAL		DATE OF RECEIPT	24/03/2023
MINE,VILLAGE - MILUPARA,		DATE OF REPORT	28/03/2023
BLOCK-TAMNAR,		DATE OF ANALYSIS	START:24/03/2023 END:28/03/2023
DISTT. - RAIGARH (C.G.) 496107			
SAMPLE DETAILS			
CUSTOMER SAMPLE ID	OIL (KONDKEL)	CUSTOMER REF. NO. & DATE	M/PO/SRV/2122/0049, DTD. 24-JULY-2021
SAMPLE TYPE	USED OIL (HW CATECORY - 5.1)	SAMPLE CONDITION AT RECEIPT	OK
PACKING OF SAMPLE	PLASTIC BOTTLE	SAMPLE COLLECTED BY	LAB CHEMIST
OTHER DEATAILS	SEALED	QUANTITY RECEIVED	APPROX 1 LTR.

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	RESULT
1	Total Ash	%/mass	IS:1448 (Part-4):1984	0.277
2	Flash Point	°C	IS:1448 (Part-20):1998	46.5
3	Sulphur	%/mass	IS:1448 (Part-33):1991	1.95
4	Density@25°C	Gm/ml	IS:1448 (Part-16):1990	0.859

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- > The above analysis report refers to the particular sample received at our end and the use of the report for publication, arbitration or as legal dispute is forbidden.
- > Test sample will be retained for 07 days after issue of test report unless otherwise agreed with customer.

 28/03/2023 REVIEWED BY		For ULTIMATE ENVIROLYTICAL SOLUTIONS 28/03/23 AUTHORIZED SIGNATORY
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-----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

Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

<i>Name & Address Of The Customer</i>		REPORT NO.	UES/TR/22-23/09188
TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA - IV/5, MILUPARA U/G COAL MINE,VILLAGE - MILUPARA, BLOCK-TAMNAR, DISTT. - RAIGARH (C.G.) 496107		LAB REF NO.	UES/22-23/W/017613
		DATE OF SAMPLING	23/03/2023
		DATE OF RECEIPT	24/03/2023
		DATE OF REPORT	28/03/2023
		DATE OF ANALYSIS	START:24/03/2023 END:28/03/2023
SAMPLE DETAILS			
CUSTOMER SAMPLE ID	OIL (KONDKEL)	CUSTOMER REF. NO. & DATE	M/PO/SRV/2122/0049, DTD. 24-JULY-2021
SAMPLE TYPE	WASTE / RESIDUES CONTAINING OIL (HW CATEGORY - 5.2)	SAMPLE CONDITION AT RECEIPT	OK
PACKING OF SAMPLE	PLASTIC BOTTLE	SAMPLE COLLECTED BY	LAB CHEMIST
OTHER DEATAILS	SEALED	QUANTITY RECEIVED	APPROX 1 LTR.

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	RESULT
1	Total Ash	%/mass	IS:1448 (Part-4):1984	0.258
2	Flash Point	°C	IS:1448 (Part-20):1998	44.1
3	Sulphur	%/mass	IS:1448 (Part-33):1991	1.23
4	Density @ 25°C	Gm/ml	IS:1448 (Part-16):1990	0.554

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- The above analysis report refers to the particular sample received at our end and the use of the report for publication, arbitration or as legal dispute is forbidden.
- Test sample will be retained for 07 days after issue of test report unless otherwise agreed with customer.

 28/03/2023 REVIEWED BY		For ULTIMATE ENVIROLYTICAL SOLUTIONS 28/03/23 AUTHORIZED SIGNATORY
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-----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

Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Name & Address Of The Customer		REPORT NO.	UES/TR/22-23/09189	
TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA - IV/5, MILUPARA U/G COAL MINE,VILLAGE - MILUPARA, BLOCK-TAMNAR, DISTT. - RAIGARH (C.G.) 496107		LAB REF NO.	UES/22-23/W/017614	
		DATE OF SAMPLING	23/03/2023	
		DATE OF RECEIPT	24/03/2023	
		DATE OF REPORT	28/03/2023	
		DATE OF ANALYSIS	START:24/03/2022	END:28/03/2022
SAMPLE DETAILS				
CUSTOMER SAMPLE ID	OIL (KONDKEL)	CUSTOMER REF. NO. & DATE	M/PO/SRV/2122/0049, DTD. 24-JULY-2021	
SAMPLE TYPE	CONTAMINATED COTTN RAGS OR OTHER CLEANED MATERIAL (33.2)	SAMPLE CONDITION AT RECEIPT	OK	
PACKING OF SAMPLE	PLASTIC BOTTLE	SAMPLE COLLECTED BY	LAB CHEMIST	
OTHER DEATAILS	SEALED	QUANTITY RECEIVED	APPROX 1 LTR.	

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	RESULT
1	Total Ash	%/mass	IS:1448 (Part-4):1984	0.225
2	Flash Point	°C	IS:1448 (Part-20):1998	39.3
3	Sulphur	%/mass	IS:1448 (Part-33):1991	0.92
4	Density @ 25°C	Gm/ml	IS:1448 (Part-16):1990	0.241

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

- The above analysis report refers to the particular sample received at our end and the use of the report for publication, arbitration or as legal dispute is forbidden.
- Test sample will be retained for 07 days after issue of test report unless otherwise agreed with customer.

<p><i>(PBhouhan)</i> 28/03/2023</p> <p>REVIEWED BY</p>		<p>For ULTIMATE ENVIROLYTICAL SOLUTIONS</p> <p><i>(R. Bhat)</i> 28/03/23</p> <p>AUTHORIZED SIGNATORY</p>
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-----End of the test report-----

Annexure - 7

Gare Palma IV/5 Coal Mine
M/s Hindalco Industries Limited,
Environmental Expenditure Details for FY 2022-23

Particulars	Amount (Lakh)
Water Quality Management	1.95
Air Quality Management	12.64
Plantation, Green Belt Development	4.00
Others	19.48
Total	38.06

Annexure -8

Year wise plantation detail of Gare Palma IV/5 Coal Mine						
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	30000	82.00	24600	9.84	Neem, Mahua, , Jamun, Mango, Guava, Imli,. Drumstick, Teak, Shivan / Ghamar, Sisham, Sirius, Bamboo, Peltafarm, Nilgiri, Amla, Saptaparni, Kathal, kassod tree, Arjuna & Kachnar etc
2016		2000	85.00	1700	0.68	
2017		5000	80.00	4000	1.60	
2018		5000	92.00	4600	1.84	
2019		5000	93.00	4650	1.86	
2020		1100	95.00	1045	0.42	
2021		1504	91.00	1369	0.55	
2022		2500	95.00	2375	0.95	
Total		52104	89.13	44339	17.7	

Note : Gap filling of plants is a continuous process





