



September 18, 2026

The Member Secretary
U.P. Pollution Board
T.C 12 – V, Vibhuti Khand,
Gomti Nagar,
LUCKNOW

Sub: Submission of Environmental statement (FORM-V) For the year 2025-26

Dear Sir,

With reference to Rule 14 of Environment (Protection) Amendment Rules 1993 as notified by Govt. of India vide Notification NO. GSR – 386 (E) dated 22nd April 1993, all industries are required to submit environmental statement every year by 30th September.

We are enclosing herewith environmental statement in respect of our industry on prescribed Form No. V along with enclosure for the financial year ending 31st March 2026 for your kind perusal.

Thanking You,

FOR HINDALCO INDUSTRIES LIMITED

Sent on 18.09.26
Satyajit Acharya
G.M (Environment)

Encl: as above

cc To,
Regional Officer
Uttar Pradesh Pollution Control Board
Lodhi (Near Zilla Udyog Kendra Office)
Sonbhadra, 231216 (U.P.)

HINDALCO INDUSTRIES LIMITED
Renukoot Works
P.O.Renukoot - 231217
Distt. Sonbhadra (U.P.)
Telephone +91 5446 252077-79 / 254791-96
Fax +91 5446 252107 / 252427

REGISTERED OFFICE
Ahura Centre, 1st Floor, B-Wing
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Website www.hindalco.com
E mail hindalco@adityabirla.com
Corporate Identity No. L27020MH1958PLC011238

ENVIRONMENT STATEMENT REPORT FORM-V

(See rule 14)

Environmental Statement for the financial year ending with 31st March 2025**PART-A****General Information**

(1)	Name and address of the owner/occupier of the industry operation or process	M/s Hindalco Industries Ltd. P.O. Renukoot – 231217, Dist. Sonbhadra (U.P.)		
(2)	Industry category Primary			
(3)	Production capacity	No.	Product Name	Capacity
		(1)	Primary Aluminium Metal	420000 MTPA
		(2)	Extruded product	4000 MT/Month
		(3)	Flat Roll Product	10000 MT/Month
		(4)	Wire Rod	8500 MT/ Month
		(5)	Alumina production (Intermediate product)	720 KTPA
		(6)	Co Gen Power	84 MW
(4)	Year of establishment	1962		
(5)	Date of the last environmental statement submitted	22.09.2025		

PART-B**Water & Raw Material Consumption****1. Water consumption (m3/day)**

Category	Consumption
Process	4101
Domestic	20456

Name of the product	Process Water Consumption per Unit of product Output (m3/MT)	
	During the previous financial year-2024-25	During the current financial year-2025-26
Primary Aluminium Metal (2025-2026) 407296 MT/Year	4.22	3.67

2. Raw Material Consumption

No.	Name of raw Material	Name of product	Raw Material Consumption per Unit of product Output		
			UOM	During the previous financial year-2024-25	During the current financial year-2025-26
1.	Bauxite	Aluminium Metal	MT	3.533	4
2.	Caustic Soda		MT	0.158	0.19
3.	Al. Fluoride		MT	0.017	0.02
4.	C.P. Coke		MT	0.359	0.39
5.	LSHS / HSD Oil		MT	0.154	0.16
6.	Steam Coal		MT	1.669	1.64

PART- C

Pollution discharged to environment/Unit of Output (Parameter as per CTO)

Pollution	Quantity of pollutant discharged (mass/day)	Concentration of pollutant in discharged (mass/volume)	Percentage of variation from prescribed standards with reason.
Water			
(A) Effluent Water	ZLD concept has been established.	NIL	
(B) STP Water: - 6983 KL / day (recycled for process & horticulture use).			

Note: - 4427 KL/day effluent is being treated which is totally recycled. Plant has been maintained at the zero liquid discharge.

(C) Air (Particulate matter)			Quantity of pollutant discharged (mass/day)	Concentration of pollutant in discharged (mass/volume)	Percentage of variation from prescribed standards with reason
No.	Stack Name	Pollutant	MT/day	Mg/Nm3	Mg/Nm3
1.	Calcliner # 1	Particulate Matter	0.29	106.55	250
2.	Calcliner # 2		0.20	64.25	250
3.	Baking Furnace # 4		0.11	31.08	50
4.	Baking Furnace # 5		0.09	25.90	50
5.	Baking Furnace # 6		0.10	28.53	50
6.	Boiler # 1		0.38	88.85	150
7.	Boiler # 2		0.35	82.50	150
8.	Boiler # 3		0.29	84.80	150
9.	Boiler # 4		0.28	52.38	150
10.	DSS Pot Line - I		0.13	11.00	150
11.	DSS Pot Line - II		0.11	10.40	150
12.	DSS Pot Line - III		0.13	11.33	150
13.	DSS Pot Line - IV (old)		0.03	9.60	150
14.	DSS Pot Line - IV (Ph-I)		0.03	10.73	150
15.	DSS Pot Line - IV (Ph-II)		0.08	10.38	150
16.	DSS Pot Line - V		0.18	12.08	150
17.	DSS Pot Line - VI		0.17	12.00	150
18.	DSS Pot Line - VII		0.17	11.30	150
19.	DSS Pot Line - VIII		0.18	11.40	150
20.	DSS Pot Line - IX		0.14	10.20	150
21.	DSS Pot Line - X		0.17	11.58	150
22.	DSS Pot Line - XI		0.19	12.55	150
23.	Hammer Mill # 1		0.03	83.60	150
24.	Hammer Mill # 2		0.04	96.18	150
25.	Hammer Mill # 3		0.06	87.18	150
26.	Hammer Mill # 4		0.10	95.98	150
27.	Hammer Mill # 5		0.04	98.90	150
28.	North Bag House		0.70	87.45	150
29.	Middle Bag House		0.74	85.88	150
30.	South Bag House		0.76	92.53	150
31.	Anode Bag House		0.00	0.00	150
32.	Cathode Bag House		0.00	0.00	150
33.	Mixing & Proportioning Bag House		0.26	107.25	150
34.	12 Ton Ball Mill Bag House		0.20	91.93	150
35.	Pitch Fume Treatment Plant Bag House		1.40	97.40	150

36.	Butt CKT Bag House	0.75	95.30	150
37.	Pitch Bag House	0.40	98.35	150
38.	CPC Bag House (new)	0.38	94.43	150
39.	CPC Bag House (old)	0.75	100.45	150
40.	CPC Bag House New CKT	0.52	87.63	150
41.	Additional CPC Bag House	0.40	96.10	150
42.	Cast House S1	0.01	53.35	150
43.	Cast House S2	0.01	56.21	150
44.	Cast House S3	0.01	85.80	150
45.	Cast House P1 & P2	0.01	79.88	150
46.	Caster Plant	0.01	103.12	150
47.	Melting & Holding Furnace DC2	0.02	98.31	150
48.	New Billet Casting Plant-II	0.01	41.39	150
49.	Holding Melting & Furnace DC4	0.00	0.00	150
50.	Holding Melting & Furnace DC5	0.00	0.00	150
51.	Holding Melting & Furnace 6	0.02	100.50	150
52.	Holding Melting & Furnace 6A	0.02	97.18	150
53.	Holding Melting & Furnace 7	0.02	99.18	150
54.	Holding Melting & Furnace 7A	0.02	98.72	150
55.	Holding Melting & Furnace 8	0.02	103.98	150
56.	Holding Melting & Furnace 8A	0.02	109.05	150
57.	Billet Casting Melting cum Holding Furnace no B1	0.02	105.00	150
58.	Billet Casting Melting cum Holding Furnace no B2	0.01	80.87	150
59.	Cupola	0.09	167.88	150
60.	Cast House S4	0.03	62.90	150

Pollution			Quantity of pollutant discharged (mass/day)	Concentration of pollutant in discharged (mass/volume)	Percentage of variation from prescribed standards with reason
Air (SO2)					
No.	Stack Name	Pollutant			
			MT/Day	Mg/Nm3	
1.	Calciner # 1		0.23	84.18	Height of stacks installed are more than as per calculation based on CPCB formula on the basis of max. Sulphur content in fuel. On the basis of monitored values the height of stacks is well within the limits.
2	Calciner # 2		0.28	89.28	
3	Baking Furnace # 4		0.48	142.83	
4	Baking Furnace # 5		0.35	103.20	
5	Baking Furnace # 6		0.33	96.05	
6	Boiler # 1		1.28	298.23	
7	Boiler # 2		1.49	353.00	
8	Boiler # 3		1.23	360.70	
9	Boiler # 4		1.44	274.58	
10	Cast House S1		0.31	26.35	
11	Cast House S2		0.33	27.75	
12	Cast House S3		0.44	34.58	
13	Cast House P1 & P2		0.40	31.45	
14	Caster Plant		0.30	32.45	

15	Melting & Holding Furnace DC2	SO2	0.48	35.30	
16	New Billet Casting Plant-II		0.27	26.80	
17	Holding Melting & Furnace DC4		0.00	0.00	
18	Holding Melting & Furnace DC5		0.00	0.00	
19	Holding Melting & Furnace DC6		0.55	35.33	
20	Holding Melting & Furnace 6A		0.56	32.03	
21	Holding Melting & Furnace 7		0.49	32.95	
22	Holding Melting & Furnace 7A		0.52	33.43	
23	Holding Melting & Furnace 8		0.54	33.93	
24	Holding Melting & Furnace 8A		0.56	34.25	
25	Billet Casting Melting cum Holding Furnace no B1		0.57	37.28	
26	Billet Casting Melting cum Holding Furnace no B2		0.43	36.98	
27	Cupola		0.95	114.18	
28	Cast House S4		0.56	78.33	

Pollution			Quantity of pollutant discharged (KG/Ton Of Alumina)	Percentage of variation from prescribed standards with reason
Air (Total Fluoride)				
No.	Stack Name	Pollutant		
1	DSS Pot Line – I	Total Fluoride	0.114	0.8 Kg /Ton of Aluminium produced
2	DSS Pot Line – II		0.096	
3	DSS Pot Line – III		0.107	
4	DSS Pot Line – IV (old)		0.072	
5	DSS Pot Line – IV (Ph-I)		0.097	
6	Pot Line – IV (Ph-II)		0.110	
7	DSS Pot Line – V		0.112	
8	DSS Pot Line – VI		0.113	
9	DSS Pot Line – VII		0.113	
10	DSS Pot Line – VIII		0.116	
11	DSS Pot Line – IX		0.100	
12	DSS Pot Line – X		0.114	
13	DSS Pot Line – XI		0.112	
14	Baking Furnace # 4		0.023	
15	Baking Furnace # 5		0.016	
16	Baking Furnace # 6		0.010	

PART - D

HAZARDOUS WASTE

(As specified under Hazardous & Other Waste Management and Handling Rules 2016)

S.No.	Hazardous waste And Category		Total Quantity- MT	
			During the previous financial year (2024-25)	During the Current financial year (2025-26)
	A) From process	UOM		
1.	Used Oil - 5.1	KL	2303.176	2155.365
2.	Spent Resin- 35.2	MT	9.7	3.2
3.	SPL-11.2	MT	14689.122	13583.236
4.	Aluminium Dross-11.5	MT	6243.35	6575.41

PART- C

Pollution discharged to environment/Unit of Output (Parameter as per CTO)

Pollution	Quantity of pollutant discharged (mass/day)	Concentration of pollutant in discharged (mass/volume)	Percentage of variation from prescribed standards with reason.
Water			
(A) Effluent Water	ZLD concept has been established.	NIL	
(B) STP Water: - 7724 KL / day (recycled for process & horticulture use).			

Note: - 4521 KL/day effluent is being treated which is totally recycled. Plant has been maintained at the zero liquid discharge.

(C) Air (Particulate matter)			Quantity of pollutant discharged (mass/day)	Concentration of pollutant in discharged (mass/volume)	Percentage of variation from prescribed standards with reason
No.	Stack Name	Pollutant	MT/day	Mg/Nm3	Mg/Nm3
1.	Calcliner # 1	Particulate Matter	0.29	106.55	250
2.	Calcliner # 2		0.20	64.25	250
3.	Baking Furnace # 4		0.11	31.08	50
4.	Baking Furnace # 5		0.09	25.90	50
5.	Baking Furnace # 6		0.10	28.53	50
6.	Boiler # 1		0.38	88.85	150
7.	Boiler # 2		0.35	82.50	150
8.	Boiler # 3		0.29	84.80	150
9.	Boiler # 4		0.28	52.38	150
10.	DSS Pot Line - I		0.13	11.00	150
11.	DSS Pot Line - II		0.11	10.40	150
12.	DSS Pot Line - III		0.13	11.33	150
13.	DSS Pot Line - IV (old)		0.03	9.60	150
14.	DSS Pot Line - IV (Ph-I)		0.03	10.73	150
15.	DSS Pot Line - IV (Ph-II)		0.08	10.38	150
16.	DSS Pot Line - V		0.18	12.08	150
17.	DSS Pot Line - VI		0.17	12.00	150
18.	DSS Pot Line - VII		0.17	11.30	150
19.	DSS Pot Line - VIII		0.18	11.40	150
20.	DSS Pot Line - IX		0.14	10.20	150
21.	DSS Pot Line - X		0.17	11.58	150
22.	DSS Pot Line - XI		0.19	12.55	150
23.	Hammer Mill # 1		0.03	83.60	150
24.	Hammer Mill # 2		0.04	96.18	150
25.	Hammer Mill # 3		0.06	87.18	150
26.	Hammer Mill # 4		0.10	95.98	150
27.	Hammer Mill # 5		0.04	98.90	150
28.	North Bag House		0.70	87.45	150
29.	Middle Bag House		0.74	85.88	150
30.	South Bag House		0.76	92.53	150
31.	Anode Bag House		0.00	0.00	150
32.	Cathode Bag House		0.00	0.00	150
33.	Mixing & Proportioning Bag House		0.26	107.25	150
34.	12 Ton Ball Mill Bag House		0.20	91.93	150
35.	Pitch Fume Treatment Plant Bag House		1.40	97.40	150

5.	Used Anode Butts-11.6	MT	41637.571	43523.065
6.	Tar Containing Waste- 11.3	MT	347.850	397.68
7.	Vanadium sludge- 11.7	MT	4680.20	4956.25
8.	Contaminated Cotton rags- 33.2	MT	71.7	46.18
9.	Empty Barrels and containers- 33.1	MT	235.305	198.83
B) From Pollution control facilities				
1.	ETP sludge	MT	2061.26	2662.383
2.	APCS Dust	MT	1011.06	1021.8

- We have Authorization under Hazardous Waste Rules, 2016, Authorization No. 30506/UPPCB/Sonebhadra(UPPCBRO)/HWM/SONBHADRA/2026 Dated May 25,2026 valid Till June 04,2031.
- Details are in the section of Hazardous Waste in Part – F

**PART-E
SOLID WASTE**

	Waste	UOM	Total Quantity (MT)	
			During the previous financial year (2024-25)	During the Current financial year (2025-26)
A) From Process (Generation)	Red Mud	MT	1072517 (As 73-74% solid cake)	1128780
	Fly Ash	MT	277011.98	252986.191
B) From pollution control facility	Alumina Dust	MT	909.19	785.40
	Fly Ash	MT	554.61	386.88
C) Quantity recycled or re-utilized within the unit: Haz. Waste.	Used Anode butts	MT	41637.571	43523.065
	ETP Sludge	MT	2061.26	1796.44
	APCS Dust	MT	1011.06	1021.8
	Coolant oil	KL	2093.596	1951.245
	Spent Resin	MT	9.7	3.2
	Red Mud	MT	1087510 (As 73-74% solid cake)	1341799
D) Disposed/ Utilization	Fly Ash	MT	277755.63	251191.590
	SPL	MT	14716.93	13636.74
E) TSDF / Approved recyclers / approved re-processors: Haz. Waste	a) Carbon Portion	MT	3000.23	2968.19
	b) Refractory Portion	MT	11716.70	10668.55
	Used Oil	KL	182.84	204.12
	Empty Barrels and containers	MT	235.305	198.83
	Contaminated Cotton rags	MT	71.7	46.18
	Aluminium Dross	MT	5918.81	6223.63
	Vanadium sludge	MT	4729.544	4979.63
	Tar Containing Waste	MT	347.85	397.68

PART-F

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.

No.	Hazardous waste	Mode of Disposal
1.	Used Oil	Used oil is sold through the disposal department to registered recyclers authorized by the Pollution Control Board. Coolant oil is re-distilled in our oil distillation unit for reuse
2.	ETP Sludge	Totally used in Red Mud Plantation Area within our premises as soil conditioner. Analysis enclosed herewith as Annexure - I.
3.	APCS Dust	No storage as and when generated sent to boiler for recovery of energy value by mixing in coal. Analysis enclosed herewith as Annexure - II
4.	Aluminium Dross	Aluminium dross is stored temporarily in our disposal yard under a covered shed with concrete flooring. Aluminium dross is sent to approved recyclers/re-processors. Analysis is enclosed herewith as Annexure-III."
5.	Spent pot Lining	SPL refractory portion is sent to M/s BOWML, Kanpur for TSDF, and SPL carbon is co-processed by approved recyclers. Analysis is enclosed herewith as Annexure-IV.
6.	Vanadium Sludge	Vanadium sludge is stored temporarily in our raw material godown under a covered shed with concrete flooring. Vanadium sludge is sent to approved recyclers/re-processors. Analysis is enclosed herewith as Annexure-V
7.	Empty Barrels and containers	It is stored temporarily at our disposal yard under a covered shed with concrete flooring and sold to an approved recycler."
8.	Spent Resin	No storage as and when generated sent to boiler for recovery of energy value by mixing in coal.
9.	Contaminated Cotton rags	It is stored temporarily at site in our disposal yard under a covered shed with concrete flooring and sent to M/s UltraTech Dalla for co-processing in kiln.
10.	Tar Containing waste	It is stored temporarily at site in our disposal yard under a covered shed with concrete flooring and sent to an approved TSDF operator for incineration. Analysis is enclosed herewith as Annexure-VI.
11.	Used Anode Butts	No storage as and when generated reused in our captive Anode Plant within plant premises. Analysis enclosed herewith as Annexure -VII.

No.	Solid Waste	Mode of disposal
1.	Red Mud	Dry stacking is done on our own land as 73-74% solid cake. Red mud is dispatched to various cement plants through rail/road for utilization. During the year, approximately 101.4% of red mud is utilized. Analysis is enclosed herewith as Annexure-VIII.
2.	Fly Ash	We have a dry ash handling system in all four boilers. Various cement manufacturers and other users take away fly ash. Fly ash is disposed to various cement plants for utilization, and bottom/wet/pond ash is utilized in low-lying areas. During the year, approximately 100.27% of ash is utilized. Analysis is enclosed herewith as Annexure-IX.

PART – G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

Guided by Our purpose "To enrich lives, by building dynamic and responsible business and institutions that inspire trust", and by leveraging our resources, expertise, and influence, we aspire to be a catalyst for meaningful impact, shaping a future where business serves as a force for good in everything that we touch and do.

Our company's recent global recognitions are testimony to our differentiated ESG approach which includes targeted initiatives to achieve net zero, zero waste to landfill, no net loss to biodiversity, and water positivity by 2050. As a result of these efforts, we ranked among the top 1% in the Aluminium industry in the S&P global (DJSI) Sustainability Yearbook of 2026 for the sixth in a row.

To promote water conservation in colony, we have installed Installed 792 Nos (500 ltr capacity) overhead tanks at the residence of in PI 2 colony to reduce water wastage and ensure reliable access to water for all residents, especially those working in shifts. This initiative has significantly reduced the consumption of fresh drinking water by preventing unnecessary overflow and wastage. As a result, we have Achieved 19.60 % reduction in fresh river water consumption up to FY 26 as compared to base line year FY19 ie 24543 KLD in FY26 against 30525 KLD in FY 19.

In plant We have implemented many projects like

- "Utilizing Evap# 4 alkaline condensate as DM feed water in Boiler Evaporation # 4", Impact: 200 KLD saving of fresh river water.
- Implementing project "utilizing Alumina Plant ISH "A" quality condensate as Boiler Feed. Impact - approx-350 KLD Saving of fresh river water.

Which help us to Achieved 12.58% reduction in specific freshwater consumption up to FY26, as compared to baseline year FY-19 ie 8.55 M3/MT in FY26 against 9.78 M3/MT of primary Aluminium metal in FY19.

To Improve the sludge quality for Co-Processing purposes Filter Press of capacity 2x10 M3/Hr has been commissioned successfully.

We have successfully replaced the old ESP of calciner with new ESP to ensure compliance with the revised air emission norms.

We have Achieved Zero Waste to Landfill (ZWTL) Certification with a 99.29% waste diversion rate, significantly reducing landfill dependency, conserving natural resources, minimizing environmental pollution, and advancing the circular economy.

PART – H

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

- We have established Red Mud utilization very well with Cement Industries. During the year, total Red Mud 1341799, which is approx. 118.9% % of our generation has been dispatched through rail/road to various cement industries.
- The Four Nos Continuous Ambient Air monitoring system is working well, and online data is being transferred to CPCB server regularly. We have installed 24 Nos CEMS for monitoring PM and HF from our process and data has been transferred to CPCB as per guidelines.
- Ash is being utilized in Cement Plant in and Low-Lying area, during the year 99.29%% has been utilized.
- For monitoring of Fugitive emission in pot lines technology has been finalized. Equipment will be installed for monitoring HF and CO.
- Installation of OCEMS for applicable parameters at all our stacks in compliance of new emission Notification.
- CP of Rs 79 CR for 16 MLD STP Upgradation with MBR based Technology has been approved to improve the treated water quality.

- RO-ZLD plant pre-commissioning is under progress so that water withdrawal from river can be reduced from Approx 25000 KLD TO 20000 KLD.
- Installation of High-pressure Rain Gun Sprinkling System around coal yard for dust suppression and ensure compliance with pollution control norms and environmental regulations.

PART – I Miscellaneous

Any other particulars for improving the quality of the environment.

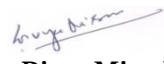
- The company's integrated Aluminium complex at Renukoot is certified for Integrated Management System (ISO-14001, OHSAS-18001 and ISO-9001) and bi-annually audited during the year by DNV –GL Business Assurance India.
- Two Nos Fog Gun have been deployed in red mud area to prevent fugitive emission throughout the year.
- Approximately 75,000 saplings were planted in nearby villages through the CSR department, in compliance with letter no. G0507/Plantation/2025-26 dated April 30, 2025, received from RO, UPPCB. Geo-tagging was completed using the Haritma App, and the same was informed to RO, UPPCB on August 14, 2025
- We have installed 13 nos. RO plant at nearby villages to distribute pure drinking water. Also deputed water tankers have capacity of 10KL for distribution purposes.
- Implement a pilot project for the utilization of red mud in abandoned mine backfilling, aimed at ecological restoration, enhancement of green cover, stabilization of degraded land, and advancement of circular economy practices through sustainable red mud management.

Annexure-I

Test Report for Solid Waste Quality

Report No.		Reference No.		Issue Date
PCS/SWQ/01/2026		PCS/HIL/01/2026		12/03/2026
1. Name & Address of Industry:		M/s Hindalco Industry Limited,PO - Renukoot, Dist- Sonebhadra (UP)		
2. Type of Industry:		Aluminium Industry	8. Date of Sampling:	17/02/2026
3. Sampling Done by:		Mr. Asheesh & Umakant	9. Sample Receipt in lab:	18/02/2026
4. Sampling Location:		ETP Sludge	10. Date of Testing:	18/02/2026-23/02/2026
5. Lab Code:		PCS26/58/238	11. Sample Analyzed By:	Mr. Ajay Kumar
6. Method of Sampling:		PCS/WI/SAMP/21		
S.No.	Parameters	Unit	Reference Method	Result
1.	Al ₂ O ₃	%	-	32.8
2.	TiO ₂	%	-	1.25
3.	Fe ₂ O ₃	%	-	4.15
4.	Na ₂ O	%	PCS/SOP/SOIL/03: 2016	1.00
5.	CaO	%	PCS/SOP/SOIL/03: 2016	2.36
6.	MgO	%	-	0.19
7.	SiO ₂	%	-	6.58
8.	P ₂ O ₅	%	-	0.39
9.	V ₂ O ₅	%	-	0.45
10.	LOI	%	-	25.6

- Note: 1.The results in the Test Report related only to the items tested.
 2. The report shall not be reproduced-except in full without the written permission of laboratory
 3. The report shall not be used for any other purpose than declared by the sponsor.
 4. Prakriti Consultants Services are not regulatory agency hence no part of this report should be used for legal purpose under any circumstances.
 5. No deviation as per the Standard Method


 (Dr. Divya Misra)
 Authorized Signatory

-----“End of this Test Report”-----

Page 1 of 1

Annexure-II

Test Report for Solid Waste Quality

Report No.		Reference No.		Issue Date
PCS/SWQ/01/2026		PCS/HIL/01/2026		12/03/2026
1. Name & Address of Industry:		M/s Hindalco Industry Limited, PO - Renukoot, Dist- Sonebhadra (UP)		
2. Type of Industry:		Aluminium Industry	7. Date of Sampling:	17/02/2026
3. Sampling Done by:		Mr. Asheesh & Umakant	8. Sample Receipt in lab:	18/02/2026
4. Sampling Location:		APCS Dust Analysis	9. Date of Testing:	18/02/2026-23/02/2026
5. Lab Code:		PCS26/58/241	10. Sample Analyzed By:	Mr. Ajay Kumar
6. Method of Sampling:		PCS/WI/SAMP/21		
S. No.	Parameters	Unit	Reference Method	Result
1.	Ash	%	-	35.2
2.	Si	%	-	0.19
3.	Fe	%	EPA3050 b 1996:	5.57
4.	Ni	%	EPA3050 b 1996:	0.125
5.	V	%	-	0.45
6.	Sodium as Na	%	PCS/SOP/SOIL/03: 2016	4.75
7.	Calcium	%	PCS/SOP/SOIL/03: 2016	1.30
8.	S	%	-	3.15
9.	Al	mg/kg	-	8.55
10.	Cu	mg/kg	EPA3050 b 1996:	5.80
11.	F	mg/kg	-	7.65

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 5. No deviation as per the Standard Method


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Annexure-III

Test Report for Solid Waste Quality

Report No.		Reference No.		Issue Date
PCS/SWQ/01/2026		PCS/HIL/01/2026		12/03/2026
1. Name & Address of Industry:		M/s Hindalco Industry Limited,PO - Renukoot, Dist- Sonebhadra (UP)		
2. Type of Industry:		Aluminium Industry	7. Date of Sampling:	17/02/2026
3. Sampling Done by:		Mr. Asheesh & Umakant	8. Sample Receipt in lab:	18/02/2026
4. Sampling Location:		Aluminum dross	9. Date of Testing:	18/02/2026-23/02/2026
5. Lab Code:		PCS26/58/237	10. Sample Analyzed By:	Mr. Ajay Kumar
6. Method of Sampling:		PCS/WI/SAMP/21		
S. No.	Parameters	Unit	Reference Method	Result
1.	Al ₂ O ₃	%	-	58.6
2.	TiO ₂	%	-	0.17
3.	Fe ₂ O ₃	%	-	0.27
4.	Na ₂ O	%	PCS/SOP/SOIL/03: 2016	1.50
5.	CaO	%	PCS/SOP/SOIL/03: 2016	0.22
6.	MgO	%	-	0.51
7.	SiO ₂	%	-	0.75
8.	MnO ₂	%	-	0.135
9.	F ⁻	%	-	4.26
10.	Cl	%	-	0.70

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Annexure-IV

Test Report for Solid Waste Quality

Report No.	Reference No.	Issue Date
PCS/SWQ/01/2026	PCS/HIL/01/2026	12/03/2026
1. Name & Address of Industry:	M/s Hindalco Industry Limited, PO - Renukoot, Dist- Sonbhadra (UP)	
2. Type of Industry:	Aluminium Industry	8. Date of Sampling:
3. Sampling Done by:	Mr. Asheesh & Umakant	9. Sample Receipt in lab:
4. Sampling Location:	Spent Pot lining Matrial (SPL)	10. Date of Testing:
5. Lab Code:	PCS26/58/236	11. Sample Analyzed By:
6. Method of Sampling:	PCS/WI/SAMP/21	Mr. Ajay Kumar

S.No.	Parameters	Unit	Reference Method	Result
1.	pH	-	IS 2720 Part 26 : 1987	8.81
2.	Moisture	%	-	8.65
3.	Total Solid	%	-	58.9
4.	Volatile solid in total solid	%	-	10.5
5.	Ash in total solid	%	-	20.8
6.	Fluoride as F	%	-	15.2
7.	Sodium as Na	%	PCS/SOP/SOIL/03: 2016	1.25
8.	Potassium as k	%	PCS/SOP/SOIL/03: 2016	1.1
9.	Calcium	%	PCS/SOP/SOIL/03: 2016	1.45
10.	Magnesium as Mg	%	-	278
11.	Iron	mg/kg	EPA3050 b: 1996	278.5
12.	Cadmium	mg/kg	EPA3050 b 1996:	<0.025
13.	Zinc	mg/kg	EPA3050 b: 1996	20.2
14.	Manganese	mg/kg	EPA3050 b: 1996	30.6
15.	Lead	mg/kg	EPA3050 b: 1996	15.6
16.	Nickel	mg/kg	EPA3050 b: 1996	28.6
17.	Copper	mg/kg	EPA3050 b: 1996	58.6
18.	Chromium	mg/kg	EPA3050 b : 1996	88.6
19.	Cobalt	mg/kg	-	8.75

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Annexure-V

Test Report for Solid Waste Quality

Report No. PCS/SWQ/01/2026	Reference No. PCS/HIL/01/2026	Issue Date 12/03/2026
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1. Name & Address of Industry:	M/s Hindalco Industry Limited, PO - Renukoot, Dist- Sonbhadra (UP)		
2. Type of Industry:	Aluminium Industry	7. Date of Sampling:	17/02/2026
3. Sampling Done by:	Mr. Asheesh & Umakant	8. Sample Receipt in lab:	18/02/2026
4. Sampling Location:	Vanadium Sludge	9. Date of Testing:	18/02/2026-23/02/2026
5. Lab Code:	PCS26/58/240	10. Sample Analyzed By:	Mr. Ajay Kumar
6. Method of Sampling:	PCS/WI/SAMP/21		

S. No.	Parameters	Unit	Reference Method	Result
1.	Al ₂ O ₃	%	-	1.25
2.	P ₂ O ₅	%	-	4.56
3.	SO ₄	%	-	0.10
4.	Na ₂ O	%	PCS/SOP/SOIL/03: 2016	21.5
5.	As ₂ O ₃	%	-	0.35
6.	V ₂ O ₅	%	-	17.6
7.	F	%	-	1.89
8.	Moisture	%	-	30.5
9.	Cl	%	-	0.035

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Annexure-VI

Test Report for Solid Waste Quality

Report No.	Reference No.	Issue Date
PCS/SWQ/01/2026	PCS/HIL/01/2026	12/03/2026
1. Name & Address of Industry:	M/s Hindalco Industry Limited, PO - Renukoot, Dist- Sonbhadra (UP)	
2. Type of Industry:	Aluminium Industry	8. Date of Sampling:
3. Sampling Done by:	Mr. Asheesh & Umakant	9. Sample Receipt in lab:
4. Sampling Location:	Tar Containing Watse	10. Date of Testing:
5. Lab Code:	PCS26/58/235	11. Sample Analyzed By:
6. Method of Sampling:	PCS/WI/SAMP/21	Mr. Ajay Kumar

S.No.	Parameters	Unit	Reference Method	Result
1.	pH	%	IS 2720 Part 26 : 1987	9.12
2.	Moisture	%	-	10.5
3.	Total Solid	%	-	65.8
4.	Volatile solid in total solid	%	-	11.6
5.	Ash in total solid	%	-	23.5
6.	Fluoride as F	%	-	25.4
7.	Sodium as Na	%	PCS/SOP/SOIL/03: 2016	1.45
8.	Potassium as k	%	PCS/SOP/SOIL/03: 2016	1.22
9.	Calcium	%	PCS/SOP/SOIL/03: 2016	1.35
10.	Magnesium as Mg	%	-	270.6
11.	Iron	mg/kg	EPA3050 b: 1996	309.5
12.	Cadmium	mg/kg	EPA3050 b 1996:	<0.025
13.	Zinc	mg/kg	EPA3050 b: 1996	18.5
14.	Manganese	mg/kg	EPA3050 b: 1996	23.7
15.	Lead	mg/kg	EPA3050 b: 1996	15.8
16.	Nickel	mg/kg	EPA3050 b: 1996	28.6
17.	Copper	mg/kg	EPA3050 b: 1996	59.25
18.	Chromium	mg/kg	EPA3050 b : 1996	82.30
19.	Cobalt	mg/kg	-	8.40

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Annexure-VII

Test Report for Solid Waste Quality

Report No.		Reference No.		Issue Date
PCS/SWQ/01/2026		PCS/HIL/01/2026		12/03/2026
1. Name & Address of Industry:		M/s Hindalco Industry Limited,PO - Renukoot, Dist- Sonebhadra (UP)		
2. Type of Industry:		Aluminium Industry	8. Date of Sampling:	17/02/2026
3. Sampling Done by:		Mr. Asheesh & Umakant	9. Sample Receipt in lab:	18/02/2026
4. Sampling Location:		Used Anode Butt Analysis	10. Date of Testing:	18/02/2026-23/02/2026
5. Lab Code:		PCS26/58/242	11. Sample Analyzed By:	Mr. Ajay Kumar
6. Method of Sampling:		PCS/WI/SAMP/21		
S.No.	Parameters	Unit	Reference Method	Result
1.	Ash	%	-	1.15
2.	Si	%	-	0.02
3.	Fe	%	EPA3050 b 1996:	0.154
4.	Ni	%	EPA3050 b 1996:	0.015
5.	V	%	-	0.02
6.	Sodium as Na	%	PCS/SOP/SOIL/03: 2016	0.003
7.	Calcium	%	PCS/SOP/SOIL/03: 2016	0.02
8.	S	%	-	1.11

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Annexure-VIII

Test Report for Solid Waste Quality

Report No. PCS/SWQ/01/2026	Reference No. PCS/HIL/01/2026	Issue Date 12/03/2026
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1. Name & Address of Industry:	M/s Hindalco Industry Limited, PO - Renukoot, Dist- Sonbhadra (UP)		
2. Type of Industry:	Aluminium Industry	8. Date of Sampling:	17/02/2026
3. Sampling Done by:	Mr. Asheesh & Umakant	9. Sample Receipt in lab:	18/02/2026
4. Sampling Location:	Red Mud	10. Date of Testing:	18/02/2026-23/02/2026
5. Lab Code:	PCS26/58/239	11. Sample Analyzed By:	Mr. Ajay Kumar
6. Method of Sampling:	PCS/WI/SAMP/21		

S. No.	Parameters	Unit	Reference Method	Result
1.	pH	-	IS 2720 Part 26 : 1987	8.69
2.	Moisture	%	-	17.6
3.	Total Solid	%	-	48.5
4.	Volatile solid in total solid	%	-	4.88
5.	Ash in total solid	%	-	56.2
6.	Fluoride as F	%	-	0.29
7.	Sodium as Na	%	PCS/SOP/SOIL/03: 2016	0.48
8.	Potassium as k	%	PCS/SOP/SOIL/03: 2016	0.52
9.	Calcium	%	PCS/SOP/SOIL/03: 2016	0.25
10.	Magnesium as Mg	%	-	248
11.	Iron	mg/kg	EPA3050 b: 1996	6085
12.	Cadmium	mg/kg	EPA3050 b 1996:	<0.025
13.	Zinc	mg/kg	EPA3050 b: 1996	60.5
14.	Manganese	mg/kg	EPA3050 b: 1996	22.5
15.	Lead	mg/kg	EPA3050 b: 1996	30.8
16.	Nickel	mg/kg	EPA3050 b: 1996	22.7
17.	Copper	mg/kg	EPA3050 b: 1996	28.4
18.	Chromium	mg/kg	EPA3050 b : 1996	485
19.	Cobalt	mg/kg	-	7.65

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Annexure-IX

Test Report for Solid Waste Quality

Report No.	Reference No.	Issue Date
PCS/SWQ/01/2026	PCS/HIL/01/2026	12/03/2026
1. Name & Address of Industry:	M/s Hindalco Industry Limited, PO - Renukoot, Dist- Sonbhadra (UP)	
2. Type of Industry:	Aluminium Industry	8. Date of Sampling: 17/02/2026
3. Sampling Done by:	Mr. Asheesh & Umakant	9. Sample Receipt in lab: 18/02/2026
4. Sampling Location:	Fly Ash	10. Date of Testing: 18/02/2026-23/02/2026
5. Lab Code:	PCS26/58/243	11. Sample Analyzed By: Mr. Ajay Kumar
6. Method of Sampling:	PCS/WI/SAMP/21	

S.No.	Parameters	Unit	Reference Method	Result
1.	pH	-	IS 2720 Part 26 : 1987	7.98
2.	Moisture	%	-	6.58
3.	Total Solid	%	-	78.6
4.	Volatile solid in total solid	%	-	9.65
5.	Ash in total solid	%	-	54.5
6.	Fluoride as F	%	-	0.28
7.	Sodium as Na	%	PCS/SOP/SOIL/03: 2016	0.34
8.	Potassium as k	%	PCS/SOP/SOIL/03: 2016	0.68
9.	Calcium	%	PCS/SOP/SOIL/03: 2016	0.005
10.	Magnesium as Mg	%	-	210.0
11.	Iron	mg/kg	EPA3050 b: 1996	435.6
12.	Cadmium	mg/kg	EPA3050 b 1996:	<0.025
13.	Zinc	mg/kg	EPA3050 b: 1996	74.80
14.	Manganese	mg/kg	EPA3050 b: 1996	172.4
15.	Lead	mg/kg	EPA3050 b: 1996	25.3
16.	Nickel	mg/kg	EPA3050 b: 1996	36.4
17.	Copper	mg/kg	EPA3050 b: 1996	18.9
18.	Chromium	mg/kg	EPA3050 b : 1996	44.6
19.	Cobalt	mg/kg	-	2.58

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