



Vide Letter No.: HZLP/M&C/22-23/H-1

Date: 12/11/2022

To.

The Regional Officer (North Central Zone), Ministry of Environment, Forests & Climate Change, 25, Subhash Road, Dehradun, Uttarakhand-248001

Subject: Submission of Environment Clearance compliance report for Pantnagar Zinc-Lead melting & casting Plant (Zinc Metal- 4,65,000 TPA & Lead Metal- 1,50,000 TPA) of M/s Hindustan Zinc Limited, Plot No 2 & 3, Sector 14, IIE, SIDCUL, Pantnagar, Dist. U.S. Nagar for the period April-2022 to September-2022.

Ref; Letter No: - J-11011/327/2010/IA-II (I) dated 26.04.2011 from MoEF&CC.

Dear Sir,

With reference to the aforesaid subject, we have obtained Environment Clearance from Ministry of Environment, Forest and Climate Change, New Delhi for Pantnagar Zinc-Lead melting & casting Plant (Zinc Metal- 4, 65,000 TPA & Lead metal- 1, 50,000 TPA) on dated 26.04.2011.

Please find enclosed herewith the Compliance report of Environment Clearance for Pantnagar Zinc-Lead melting & casting Plant of M/s Hindustan Zinc Limited, Plot No 2 & 3, Sector 14, IIE, SIDCUL, Pantnagar, Dist. U.S. Nagar for the period of April-2022 to September-2022.

In case any additional information / documents / clarifications are required, the same may kindly be informed to us.

Hindustan Zinc Limited

Plot No. 283, Sector 14, IIE, SIDCUL Pantnagar Metal Plant

Rudrapur – 263153, Ultarakhand.

Thanking you.

Yours faithfully,

(DEEPKUMAR AGARWAL)

SBU Director

Pantnagar Zinc-Lead melting & casting Plant Hindustan Zinc Limited

CC:

- 1. Regional Officer, CPCB, Lucknow
- 2. MS office, UEPPCB, Dehradun
- 3. Regional Officer, UEPPCB, Kashipur
- 4. Office copy, HZL

Hindustan Zinc Limited

Pantnagar Metal Plant Plot No. 2 & 3, Sector 14, IIE, SIDCUL Pantnagar **2**: 05944-257300, www.hzlindia.com

Regd. Office: Yashad Bhawan, Udaipur (Rajasthan) - 313 004

CIN: L27204RJ1966PLC001208

Compliance Report of Environment Clearance (APRIL-2022 to SEPTEMBER-2022)

Name of the Project:

M/s Hindustan Zinc Limited

Pantnagar Zinc-Lead melting & casting Plant

Location of the Project:

Plot No.- 2 & 3, Sector 14, IIE, SIDCUL,

Pantnagar, District - Udham Singh Nagar,

Uttarakhand – 263153

Clearance Letter No: J-11011/327/2010/IA-II (I)-Dt.26th April 2011 from MoEF&CC

Period of Compliance Report: APRIL-2022 to SEPTEMBER-2022

S. N.	Condition	Compliance Status				
Α	Specific conditions.					
1	On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. bag filters shall be provided to keep the emission levels below 50 mg/Nm³ by installing energy efficient technology.	continuous stack monitoring PM analyzers hat been provided in all process stacks. Continuous on-line Ambient air quality monitoring station (CAAQMS) is also installed in the plat premises to monitor the ambient continuously. Emission level is being maintain well within the stipulated limit. Copy of Ambient air & Stack emission qual monitoring reports attached herewith Annexure-1(a) & 1 (b) respectively. Photograph of CEMS & CAAQMS are attach herewith as Annexure-2.				
2	The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16 th November, 2009 should be followed.					
3	Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30 th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB should be followed.	Being Complied. All Gaseous emission are being controlled through efficient bag filters connected to adequate stacks height provided for proper dispersion. In addition, monthly work zone monitoring is also being carried out. Reports of stack emission and work zone are attached herewith as Annexure-1(b) & 1(c) respectively.				
4	The total water requirement shall not exceed 500 KLD. Permission to draw water from the Competent Authority shall be obtained. No effluent shall be discharged and 'zero' discharge should be adopted.	Being Complied. Water requirement of Zinc and Lead M&C process and silver process is limited to 325m3/day. For which CGWA is already given consent (Letter no. : CGWA/NOC/IND/ORIG/2018/4160 on dated 17 Oct 2018 & 01 Mar 2019 and corrigendum letter against condition no 3 on date 02 July 2019 & its renewal having NOC Number-				

		CGWA/NOC/IND/REN/1/2021/6094 valid till 26.09.2023). No effluent being generated from the process. However, Effluent treatment plant of 87 KLD already provided for treating the combined trade effluents of Zinc & Lead melting casting and Silver refining plant so ETP is not in operation. Combined STP of 30 KLD already installed to treat the waste water of Zinc and Lead Melting & Casting unit as well as silver plant. Treated water of the same is being used for horticulture/plantation. Zero discharge is being maintained.
5	Regular monitoring of influent and effluent surface, subsurface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. Leachate study for the effluent generated and analysis should also be regularly carried out and report submitted to the Ministry's Regional Office at Lucknow, SPCB and CPCB.	Being Complied. No effluent being generated from the process. Ground water being used for plant process and regular bore well monitoring being ensured. Zero Discharge is being maintained and no effluent discharged to surface water body. Provision for online monitoring of STP outlet for BOD, COD, pH, TSS & Flow has been made. Copy of ground water monitoring is attached herewith as Annexure 1(d).
6	Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement should be met from other sources	Complied. Presently We have four rain water harvesting pond for rain water collection having capacity approx. 2542, 1500, 841 and 750 cu.m and collected rainwater is being utilized into the process. In FY 2022-23,H-1. We have reused around 9,014 cu.m rainwater in the process for conserving the fresh water. Photograph of the same is attached herewith as Annexure-3.
7	Risk and Disaster Management Plan along with the mitigation measures should be prepared and a copy submitted to the Ministry's Regional Office at Lucknow, SPCB and CPCB within 3 months of issue of environment clearance letter.	Complied. Risk and Disaster Management Plan has been submitted to Ministry's Regional Office at Lucknow, SPCB and CPCB on 20.07.2011. Also we have prepared and submitted On Site Emergency plan to the competent authority. Receiving copy was submitted along with compliance report vide letter no- HZLP/M&C/18-19/H-II dated 23.04.2019.
8	As proposed, green belt shall be developed in 33 % of the plant area. Selection of plant species should be as per the CPCB guidelines in consultation with the DFO.	Complied. More than 33% Green Belt of total plant area has already been provided with three rows along with boundary wall in plant premises in consultation with DFO (Divisional Forest

		Officer) and CPCB guidelines. Gap filling		
		plantation being carried out for maintaining the		
		survival rate of Plantation.		
	At least 5 % of the total cost of the project shall be	Being Complied. CSR plan prepared and		
	earmarked towards the enterprise social commitment	submitted to MOEF-Regional Office Lucknow,		
	(ESC) and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's	CPCB regional office Lucknow and UEPPCB		
	Regional Office at Lucknow. Implementation of such	Dehradun along with E.C compliance report as		
	program should be ensured accordingly in a time bound	dated 20.07.2012, This is being implemented in		
9	manner.	phased manner with the help of local		
		administration.		
		Many CSR development activities being carried		
	•	out for upliftment of nearby communities.		
		CSR projects details is attached herewith as		
		Annexure 4.		
-	Provision shall be made for the housing of construction	Complied. Safe drinking water, sanitation		
	labour within the site with all necessary infrastructure	facilities. Medical health care etc. provided in the		
-	and facilities such as fuel for cooking, mobile toilets,	plant premises. No housing facility provided in		
10	mobile STP, Safe drinking water, medical health care,	plant premises.		
	crèche etc. The housing may be in the form of temporary	Provide a constant of the cons		
	structures to be removed after the completion of the			
В	project. General Conditions			
	The project authorities must strictly adhere to the	•		
1	stipulations made by the State Pollution Control Board	 Noted and being Complied.		
,	(SPCB) and the State Government.	Noted and being complied.		
2	No further expansion or modifications in the plant shall	Noted and being Complied.		
_	be carried out without prior approval of the Ministry of			
	Environment and Forests.			
	At least four ambient air quality monitoring stations shall	,		
	be established in the downward direction as well as	4 Ambient all quality monitoring location imalized		
	where maximum ground level concentration of PM_{10} , SO_2 and NO_X are anticipated in consultation with the	including downwind direction as well as maximum		
	SPCB including one ambient air quality monitoring	ground level concentration anticipated areas.		
	station in the downwind direction. Data on ambient air	CAAQMS also installed at plant premises. Monthly		
	quality and stack emission should be regularly submitted	monitoring being carried out in plant area. Data		
	to this Ministry including its Regional Office at Lucknow	on ambient air quality and stack emission is being		
3	and the SPCB / CPCB once in six months.	submitted regularly as stipulated.		
		Continuous on-line Ambient air quality monitoring		
		station (CAAQMS) is also installed in the plant premises to monitor the ambient air		
		premises to monitor the ambient air continuously. Emission level is being maintained		
		well within the stipulated limit.		
	•	Copy of Ambient air & Stack emission quality		
		monitoring reports attached herewith as		
		Annexure-1(a) & 1 (b) respectively.		
		Photograph of CEMS & CAAQMS are attached herewith as Annexure-2.		

4	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 th May, 1993 and 31 st December, 1993 or as amended form time to time. The treated wastewater shall be utilized for plantation purpose.	Being Complied. The domestic effluent is being treated in the STP to ensure stipulated quality and used for plantation. Photograph of STP is attached herewith as Annexure-5.
5	The overall noise levels in and around the plant area shall be kept well within the standards (85 dB) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB (daytime) and 70 dB (nighttime)	Being Complied. Acoustic enclosures/silencers are provided for DG, compressors, blowers and exhaust fans to ensure the noise levels within the factory premises is within the stipulated levels for industrial area. Green Belt along with boundary provided to limit the noise from the plant to surrounding areas. Noise monitoring reports are attached herewith as Annexure 1(e).
6	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Being complied. Pre-employment & periodic medical examinations are being carried out for the relevant occupational hazards at a regular frequency, as per statutory requirements.
7	The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	Complied. Presently We have four rain water harvesting pond for rain water collection having capacity approx. 2542, 1500, 841 and 750 cu.m and collected rainwater is being utilized into the process. In FY 2022-23, H-1. We have reused around 9,014 cu.m rainwater in the process for conserving the fresh water. Photograph of the same is attached herewith as Annexure-3.
8	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.	Being Complied. Environment protection measures and safeguards recommended in the EIA/EMP report being implemented, Socio-Economic development activities are being implemented as per action plan. Many CSR development activities being carried out for upliftment of nearby communities. CSR projects photographs is attached herewith as Annexure 4.
9	The requisite funds shall be earmarked towards the capital cost and recurring cost/annum for environmental protection measures and judiciously utilized to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.	Being Complied. Sufficient funds available for operation and maintenance of the facility during operation phase. The said funds not been diverted for any other purpose.
	A copy of clearance letter shall be sent by the proponent	Complied. The copy of the clearance letter

	Corporation, Urban Local Body and the local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	(SIDCUL). EC letter is also available on company websi			
11	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; RSPM, SO ₂ , NOx and Lead (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Being Complied. Submission of Six monthly compliance report of environmental condition with monitoring results (in hard copies as well as by e-mail) to RO, MOEF&CC, Dehradun, Zonal Office CPPCB, Lucknow, MS UEPPCB, Dehradun and RO UEPPCB, Kashipur being ensured. Six monthly compliance reports are being uploaded on company website. Link of website uploading EC compliance of October'21 to March'22 is https://www.hzlindia.com/wp-content/uploads/EC-Compliance-Report-Zinc-Lead-MC-Plant-H2-2021-22.pdf Display board on all criteria pollutants provided at main gate which is being updated regularly. Photograph of board is attached herewith as Annexure 6.			
12	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF at Lucknow, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Lucknow / CPCB / SPCB shall monitor the stipulated conditions.	Being Complied. Submission of Six monthly compliance report of environmental condition with monitoring results (in hard copies as well as by e-mail) to RO, MOEF&CC, Dehradun, Zonal Office CPPCB, Lucknow, MS UEPPCB, Dehradun and RO UEPPCB, Kashipur being ensured. Link of website uploading EC compliance of October'21 to March'22 is https://www.hzlindia.com/wp-content/uploads/EC-Compliance-Report-Zinc-Lead-MC-Plant-H2-2021-22.pdf			
13	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company alongwith the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of the MOEF by e-mail.	Environmental statement of every year is being submitted to Regional Office MoEF, CPCB and UEPPCB. Last Environment statement was submitted to RO, MoEF&CC vide letter no. HZL/PMP/ENV/M&C/2021-22/01 dated 27.08.2022 Environment statement of every year has been uploaded on company website. Link of last Environment Statement is Environment-statement-2021-22MC.pdf (hzlindia.com)			
14	The Project Proponent shall inform the public that the project has been accorded environmental clearance by	Complied. Published in newspapers of Dainik			

	the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office at Lucknow.	Jagaran and Amar Ujala. Copies have been submitted to Regional office at Lucknow along with reply of letter No. IV/ENV/Utr/Ind-34/110/2011/156 dated 08.06.2011 & on 20.07.2011 to CPCB Regional office Lucknow and UEPPCB Dehradun.
15	Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Noted & Complied. Plant was commissioned in March 2012.

Hindustan Zinc Limited Hindustan Zinc Limited Pannegar Metal Plant Pannegar Metal IIE, SIDCUL, Plot No.283, Sector 14, IIE, Skhand. Plot No.283, Sector 14, IIE, Shand. Plot No.283, Sector 14, IIE, Shand. Rudrapur – 263153, Uttarakhand.



Issue Date: 10/10/2022

EKO PRO ENGINEERS PVT. LTD.

Environmental Consultants and Analytical Laboratory
(An ISO 9001:2015 Certified Company)

Office & Laboratory: 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA. Contact No.: 9711159210, 9810240837, 9810240678 E-mail: email@ekopro.in, ekoproengineers@gmail.com, website; www.ekopro.in

TEST REPORT

Ambient Air Quality Monitoring

Test Report No.: EKO/147/061022

Issued To

: HINDUSTAN ZINC LIMITED

Plot No. 2, Sec - 14 IIE, Sidcul Pantnagar Rudrapur - Uttrakhand

Sample Description

Sample Drawn on Sample Drawn by

: Ambient Air

: 01/10/2022 To 02/10/2022: EPEPL (Mr. Chandan Sharma)

Sample Received on

Sampling Location

06/10/2022 Near Main Gate/Security

Sampling Time : 24.0 Hrs.

Sampling Plan & Procedure

: SOP-AAQ/15

Analysis Duration

06/10/2022 To 10/10/2022 30.0

Ambient Temperature (°C) Average Flow Rate of SPM (m³/min.) Average Flow Rate of Gases (lpm)

: 1.1 : 1.0

Weather Conditions Remark (if any)

: Clear

RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Notification, 18th Nov 2009
1	Particulate Matter (PM10)	IS: 5182 (P-23)	88.9	μg/m³	100.0
2	Particulate Matter (PM2.5)	EK0/CHEM/SOP/AAQ-01	47.6	μg/m³	60.0
3	Sulphur Dioxide (as SO ₂)	IS: 5182 (P-2)	14.1	µg/m³	80.0
4	Nitrogen Dioxide (as NO ₂)	IS: 5182 (P-6)	28.4	μg/m³	80.0
5	Carbon Monoxide (as CO)	IS: 5182 (P-10)	1.06	mg/m ³	4.0
6	Lead (as Pb)	IS: 5182 (P-22)	<0.1	μg/m³	1.0
7	Nickel (as Ni)	EK0/CHEM/SOP/AAQ-02	<15.0	ng/m³	20.0
8	Arsenic (as As)	EK0/CHEM/SOP/AAQ-02	<5.0	ng/m³	6.0
9	Ozone (as O ₃)	IS: 5182 (P-9)	<10.0	µg/m³	180.0
10	Ammonia (as NH ₃)	APHA Method 401	<20.0	μg/m³	400.0
11	Benzene (as C ₆ H ₆)	IS: 5182 (P-11)	<1.0	μg/m³	5.0
12	Benzo(alpha) Pyrine-Particulate Phase Only	IS: 5182 (P-12)	<1.0	ng/m³	1.0

Notes

- 1. The results given above are related to the tested sample, for various parameters, as observed at the time of at the time of Sampling. The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.

3. The test report will not be used for any publicity

4. The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer. Sample received for biological tests will be destroyed after 7 days from the date of issue of test report.

5. Responsibility of the Laboratory is limited to the invoiced amount only.

** End of Report **

FOR EKO RO ENCINE ENGRAVITATO

PURUMAYCHAUHAN

TECHNICAL MANAGER

* TECH



EKO PRO ENGINEERS PVT. LTD.

Environmental Consultants and Analytical Laboratory
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Office & Laboratory: 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA. Contact No.: 9711159210, 9810240837, 9810240678 E-mail: email@ekopro.in, ekoproengineers@gmail.com, website: www.ekopro.in

TEST REPORT

Ambient Air Quality Monitoring

Test Report No.: EKO/146/061022

Issued To : HINDUSTAN ZINC LIMITED

Plot No. 2, Sec - 14 IIE, Sidcul Pantnagar Rudrapur - Uttrakhand

Sample Description : Ambient Air

Sample Drawn on : 30/09/2022 To 01/10/2022
Sample Drawn by : EPEPL (Mr. Chandan Sharma)

Sample Received on : 06/10/2022

Sampling Location : SE Corner of Lead Plant

Sampling Time : 24.0 Hrs.
Sampling Plan & Procedure : SOP-AAQ/15

Analysis Duration : 06/10/2022 To 10/10/2022

Ambient Temperature (°C) : 30.0

Average Flow Rate of SPM (m³/min.) : 1.1

Average Flow Rate of Gases (lpm) : 1.0

Weather Conditions : Clear

Remark (if any) : NA

RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Notification, 18th Nov 2009
1	Particulate Matter (PM10)	IS: 5182 (P-23)	80.9	μg/m ³	100.0
2	Particulate Matter (PM2.5)	EK0/CHEM/SOP/AAQ-01	45.9	µg/m³	60.0
3	Sulphur Dioxide (as SO ₂)	IS: 5182 (P-2)	13.7	µg/m³	80.0
4	Nitrogen Dioxide (as NO ₂)	. IS: 5182 (P-6)	28.5	μg/m³	80.0
5	Carbon Monoxide (as CO)	IS: 5182 (P-10)	1.22	mg/m³	4.0
6	Lead (as Pb)	IS: 5182 (P-22)	<0.1	μg/m³	1.0
7	Nickel (as Ni)	EK0/CHEM/SOP/AAQ-02	<15.0	ng/m³	20.0
8	Arsenic (as As)	EK0/CHEM/SOP/AAQ-02	<5.0	ng/m³	6.0
9	Ozone (as O ₃)	IS: 5182 (P-9)	<10.0	µg/m³	180.0
10	Ammonia (as NH ₃)	APHA Method 401	<20.0	μg/m³	400.0
11	Benzene (as C ₆ H ₆)	IS: 5182 (P-11)	<1.0	μg/m³	5.0
12	Benzo(alpha) Pyrine-Particulate Phase Only	IS: 5182 (P-12)	<1.0	ng/m³	1.0

Notes

- 1. The results given above are related to the tested sample, for various parameters, as observed at the time of at the time of Sampling. The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.

3. The test report will not be used for any publicity

4. The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer. Sample received for biological tests will be destroyed after 7 days from the date of issue of test report.

5. Responsibility of the Laboratory is limited to the invoiced amount only.

** End of Report **

FOR EKO PRO ENGINE PRE LETO
PURBIMA CHADHAN
TERHNICAL MANAGER
AUTHORISEN SIBBALON



EKO PRO ENGINEERS PVT. LTD.

Environmental Consultants and Analytical Laboratory
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TEST REPORT

Ambient Air Quality Monitoring

Test Report No. : EKO/145/061022

Issued To

: HINDUSTAN ZINC LIMITED

Plot No. 2, Sec - 14 IIE, Sidcul Pantnagar Rudrapur - Uttrakhand

Sample Description

: Ambient Air

Sample Drawn on

: 01/10/2022 To 02/10/2022

Sample Drawn by

EPEPL (Mr. Chandan Sharma)

Sample Received on

: 06/10/2022

Sampling Location

Back Side of DG Area

Sampling Time

: 24.0 Hrs.

Sampling Plan & Procedure

: SOP-AAQ/15

Analysis Duration

06/10/2022 To 10/10/2022

Ambient Temperature (°C)

: 30.0

Average Flow Rate of SPM (m³/min.)

: 1.1

Average Flow Rate of Gases (Ipm)

: 1.0 : Clear

Weather Conditions Remark (if any)

: NA

RESULTS

	KESUL15				
S. No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Notification, 18th Nov 2009
1	Particulate Matter (PM10)	IS: 5182 (P-23)	75.9	μg/m³	100.0
2	Particulate Matter (PM2.5)	EK0/CHEM/SOP/AAQ-01	43.6	µg/m³	60.0
3	Sulphur Dioxide (as SO ₂)	IS: 5182 (P-2)	13.2	μg/m³	80.0
4	Nitrogen Dioxide (as NO ₂)	IS: 5182 (P-6)	26.8	μg/m ³	80.0
5	Carbon Monoxide (as CO)	IS: 5182 (P-10)	1.06	mg/m³	4.0
6	Lead (as Pb)	IS: 5182 (P-22)	<0.1	μg/m³	1.0
7	Nickel (as Ni)	EK0/CHEM/SOP/AAQ-02	<15.0	ng/m³	20.0
8	Arsenic (as As)	EK0/CHEM/SOP/AAQ-02	<5.0	ng/m ³ .	6.0
9	Ozone (as O ₃)	IS: 5182 (P-9)	<10.0	µg/m³	180.0
10	Ammonia (as NH₃)	APHA Method 401	<20.0	μg/m³	400.0
11	Benzene (as C ₆ H ₆)	IS: 5182 (P-11)	<1.0	μg/m ³	5.0
12	Benzo(alpha) Pyrine-Particulate Phase Only	IS: 5182 (P-12)	<1.0	ng/m³	1.0

Notes:

- 1. The results given above are related to the tested sample, for various parameters, as observed at the time of at the time of Sampling. The customer asked for the above tests only.
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** End of Report **

FOR ENGINEERS PAY LTD

FOR ENGINEERS PAY LTD

PURNIMAL CHARLES *

PRECHNICAL MANAGER *

(Authorised Signatory)



EKO PRO ENGINEERS PVT. LTD.

Environmental Consultants and Analytical Laboratory
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TEST REPORT

Ambient Air Quality Monitoring

Test Report No. : EKO/148/061022

Issued To

: HINDUSTAN ZINC LIMITED

Plot No. 2, Sec - 14 IIE, Sidcul Pantnagar Rudrapur - Uttrakhand

Sample Description

Sample Drawn on Sample Drawn by Sample Received on

: EPEPL (Mr. Chandan Sharma) : 06/10/2022

Sampling Location

Remark (if any)

: Canteen East Side In New Plant

30/09/2022 To 01/10/2022

Sampling Time
Sampling Plan & Procedure

: 24.0 Hrs. : SOP-AAQ/15

Ambient Air

Analysis Duration

: 06/10/2022 To 10/10/2022

Ambient Temperature (°C)
Average Flow Rate of SPM (m³/min.)

: 30.0 : 1.1 : 1.0

Average Flow Rate of Gases (lpm) Weather Conditions

: Clear : NA

RESULTS

RESULIS					
S. No.	Parameters	Test Methods	Results	Units	Limits as per CPCB Notification, 18th Nov 2009
1	Particulate Matter (PM10)	IS: 5182 (P-23)	89.4	μg/m³	100.0
2	Particulate Matter (PM2.5)	EK0/CHEM/SOP/AAQ-01	50.6	μg/m³	60.0
3	Sulphur Dioxide (as SO ₂)	IS: 5182 (P-2)	13.8	μg/m ³	80.0
4	Nitrogen Dioxide (as NO ₂)	IS: 5182 (P-6)	30.5	μg/m³	80.0
5	Carbon Monoxide (as CO)	IS: 5182 (P-10)	1.12	mg/m ³	4.0
6	Lead (as Pb)	IS: 5182 (P-22)	<0.1	μg/m³	1.0
7	Nickel (as Ni)	EK0/CHEM/SOP/AAQ-02	<15.0	ng/m³	20.0
8	Arsenic (as As)	EK0/CHEM/SOP/AAQ-02	<5.0	ng/m³	6.0
9	Ozone (as O ₃)	IS: 5182 (P-9)	<10.0	μg/m³	180.0
10	Ammonia (as NH ₃)	APHA Method 401	<20.0	μg/m³	400.0
11	Benzene (as C ₆ H ₆)	IS: 5182 (P-11)	<1.0	μg/m³	5.0
12	Benzo(alpha) Pyrine-Particulate Phase Only	IS: 5182 (P-12)	<1.0	ng/m³	1.0

Notes:

- 1. The results given above are related to the tested sample, for various parameters, as observed at the time of at the time of Sampling. The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.

3. The test report will not be used for any publicity

4. The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer. Sample received for biological tests will be destroyed after 7 days from the date of issue of test report.

5. Responsibility of the Laboratory is limited to the invoiced amount only.

** End of Report **

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*PURNIMAZINAUBIAN

TEOPHICAL MANAGERY *

(Authorised Signalory)



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Environmental Consultants and Analytical Laboratory
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Office & Laboratory: 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA. Contact No.: 9711159210, 9810240837, 9810240678 E-mail: email@ekopro.in, ekoproengineers@gmail.com, website: www.ekopro.in

TEST REPORT				
Stack Emission Analysis				
	Issue Date : 10/10/2022			
: HINDUSTAN ZINC LIMITED				
Plot No. 2 Sector -14				
IIE, Sidcul Pantnagar				
Rudrapur - (Uttrakhand)	•			
: Stack Emission				
: 01/10/2022				
: EPEPL (Mr. Chandan Sharma)				
: 06/10/2022				
: 30.0				
: NA				
: SOP-SE/09				
: 06/10/2022 To 10/10/2022				
: Stack Attached To Furnace No. 1				
; 30.0 TPH				
: Normal				
: As per requirement				
: Metal/Circular				
: 1.2 at top				
: 30.0				
: 10.5				
: 19.8 From Ground Level				
: Electricity	•			
: -				
: 30.0				
: 124.0				
: 7.5				
: 17.9				
: Nil				
	Stack Emission Analysis : HINDUSTAN ZINC LIMITED Plot No. 2 Sector -14 IIE, Sidcul Pantnagar Rudrapur - (Uttrakhand) : Stack Emission : 01/10/2022 : EPEPL (Mr. Chandan Sharma) : 06/10/2022 : 30.0 : NA : SOP-SE/09 : 06/10/2022 To 10/10/2022 : Stack Attached To Furnace No. 1 : 30.0 TPH : Normal : As per requirement : Metal/Circular : 1.2 at top : 30.0 : 10.5 : 19.8 From Ground Level : Electricity : - : 30.0 : 124.0 : 7.5 : 17.9			

RESULTS

Sampling Instrument Used-Stack Monitoring kit APM-610

S. No.	Parameters	Test Methods	Results	Units	Limits as per EPA-1986 Schedule -VI Part-D
1	Particulate Matter (as PM)	IS: 11255 (P-1)	27.4	mg/Nm ³	150.0
2	Sulphur Dioxide (as SO ₂)	IS: 11255 (P-2)	12.8	mg/Nm ³	-
3	Oxide of Nitrogen (as NOx)	IS: 11255 (P-7)	50.3	mg/Nm ³	-
4	Carbon Monoxide (as CO)	IS: 13270	<0.2	% V/V	1.0
5	Lead (as Pb)	USEPA (P-12)	<1.0	mg/Nm ³	10.0
6	Total Hydrocarbon (as HC)	IS: 5182 (P-17)	ND	mg/Nm ³	~
7	Total VOC	IS: 5182 (P-11)	ND	mg/Nm ³	-

Notes:

Remark (if any)

- 1. The results given above are related to the tested sample, for various parameters, as observed at the time of Sampling. The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
- 3. The test report will not be used for any publicity
- 4. The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer.
- 5. Responsibility of the Laboratory is limited to the invoiced amount only.

** End of Report **





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TEST REPORT

Stack Emission Analysis

Test Report No. : EKO/153/061022

Issued To

: HINDUSTAN ZINC LIMITED

Plot No. 2 Sector -14 IIE, Sidcul Pantnagar

Rudrapur - (Uttrakhand)

Sample Description : Stack Emission Sample Drawn on : 01/10/2022

Sample Drawn by : EPEPL (Mr. Chandan Sharma)

Sample Received on : 06/10/2022
Time of Sampling (minutes) : 30.0
Sampling Location : NA

Sampling Plan & Procedure : SOP-SE/09

Analysis Duration : 06/10/2022 To 10/10/2022
Source of Emission : Stack Attached To Furnace No. 2

Capacity : 30.0 TPH

Operating Load : Normal
Normal Operation Schedule : As per requirement

Type of Stack : Metal/Circular
Diameter of Stack (meter) : 1.2 at top
Height of Stack from Ground Level (meter) : 30.0

Height of Stack from Roof Level (meter) : 10.5

Height of Sampling Location (meter) : 19.8 From Ground Level
Type of Fuel Used : Electricity

Fuel Consumed per hour

Ambient Temperature (°C) : 30.0

Stack Temperature (°C) : 117.0

Average Velocity of Flue Emission (m/sec) : 7.4

Average Flow Rate (lpm) : 17.9

Control Measures (if any) : Nil

Remark (if any) : Sampling Instrument Used-Stack Monitoring kit APM-610

RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per EPA-1986 Schedule -VI Part-D
1	Particulate Matter (as PM)	IS: 11255 (P-1)	28.8	mg/Nm ³	150.0
2	Sulphur Dioxide (as SO ₂)	IS: 11255 (P-2)	11.9	mg/Nm ³	-
3	Oxide of Nitrogen (as NOx)	IS: 11255 (P-7)	45.5	mg/Nm ³	-
4	Carbon Monoxide (as CO)	IS: 13270	<0.2	% V/V	1.0
5	Lead (as Pb)	USEPA (P-12)	<1.0	mg/Nm ³	10.0
6	Total Hydrocarbon (as HC)	IS: 5182 (P-17)	ND	mg/Nm ³	- #
7	Total VOC	IS: 5182 (P-11)	ND	mg/Nm ³	-

Notes:

- 1. The results given above are related to the tested sample, for various parameters, as observed at the time of Sampling. The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.

3. The test report will not be used for any publicity

4. The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer.

5. Responsibility of the Laboratory is limited to the invoiced amount only.

** End of Report **

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Analytical Services - Analysis of Environment, Food, AYUSH, Cosmetics, Toy & Material, Lealher Products, Petroleum & Building Material Samples in Biological, Chemical, Electrical & Mechanical Disciplines.

Consulting Services - EIA, SIA, EC Compliances, Consultancy for NOC of Ground Water, Hydrogeological Studies, Environmental Audit & other studies, Ground Water & Soil Investigation

Issue Date: 05/09/2022



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TEST REPORT

Stack Emission Analysis

Test Report No.: EKO/112/010922

Issued To

: HINDUSTAN ZINC LIMITED.

Plot No. 2 Sec-14 IIE, Sidcul Pantnagar Rudrapur - Uttrakhand

Sample Description Sample Drawn on

Stack Emission 30/08/2022

Sample Drawn by

EPEPL (Mr. Chandan Sharma) 01/09/2022

Sample Received on Time of Sampling (minutes) Sampling Location

30.0 NA

Sampling Plan & Procedure

SOP-SE/09

Analysis Duration Source of Emission 01/09/2022 To 05/09/2022 Stack Attached To Lead Kettles

Capacity

180 MT*5 Port

Operating Load

: Normal

Normal Operation Schedule

: As per requirement

Type of Stack

Metal Only : 1.2 at top

Diameter of Stack (meter)

Height of Stack from Ground Level (meter)

: 40.0

Height of Stack from Roof Level (meter)

: NA

Height of Sampling Location (meter)

: 23.3 From Ground Level

Type of Fuel Used Fuel Consumed per hour : HSD/PNG : 200.0 lph.

Ambient Temperature (°C) Stack Temperature (°C)

: 32.0 : 168.0

Average Velocity of Flue Emission (m/sec)

: 9.5

Average Flow Rate (lpm) Control Measures (if any) : 21.2

Remark (if any)

: Nil

Sampling Instrument Used-Stack Monitoring kit APM-610

RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per EPA-1986 Schedule -VI Part-D	
1	Particulate Matter (as PM)	IS: 11255 (P-1)	25.9	mg/Nm ³	150.0	
2	Sulphur Dioxide (as SO ₂)	IS: 11255 (P-2)	9.28	mg/Nm ³	-	
3	Oxide of Nitrogen (as NOx)	IS: 11255 (P-7)	43.9	mg/Nm ³	-	
4	Carbon Monoxide (as CO)	IS: 13270	<0.2	% V/V	. 1.0	
5	Lead (as Pb)	USEPA (P-12)	<1.0	mg/Nm ³	10.0	
6	Total Hydrocarbon (as HC)	IS: 5182 (P-17)	ND	mg/Nm ³	-	
7	Total VOC	IS: 5182 (P-11)	ND	mg/Nm ³	-	

Notes:

- 1. The results given above are related to the tested sample, for various parameters, as observed at the time of Sampling. The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.

3. The test report will not be used for any publicity

4. The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified bnthe customer.

5. Responsibility of the Laboratory is limited to the invoiced amount only.

** End of Report **

PURNIMA CHAUHAN ECHNICAL MANAGE (Authorised Blanatoly)



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TEST REPORT

Stack Emission Analysis

Test Report No.: EKO/156/061022

: HINDUSTAN ZINC LIMITED

Issued To

Plot No. 2 Sector -14 IIE, Sidcul Pantnagar

Rudrapur - (Uttrakhand)

Sample Description

Stack Emission

Sample Drawn on

01/10/2022

Sample Drawn by

EPEPL (Mr. Chandan Sharma)

Sample Received on

06/10/2022

Time of Sampling (minutes)

Sampling Location

NA

Sampling Plan & Procedure

SOP-SE/09

Analysis Duration

06/10/2022 To 10/10/2022 Stack Attached To DG Set No. 1

Source of Emission

7.5 MW

Capacity Operating Load

Normal

Normal Operation Schedule

As per requirement

Type of Stack

Metal/Circular

Diameter of Stack (meter)

1.1

Height of Stack from Ground Level (meter)

50.0

Height of Stack from Roof Level (meter)

36.0

Height of Sampling Location (meter)

24.0 From Ground Level

Type of Fuel Used

HSD

Fuel Consumed per hour

1600.0 lph

Ambient Temperature (°C)

30.0

Stack Temperature (°C)

254.0

Average Velocity of Flue Emission (m/sec)

13.5

Average Flow Rate (Ipm)

Control Measures (if any)

17.3

Remark (if any)

Nil

Sampling Instrument Used-Stack Monitoring kit APM-610

RESULTS

S.No.	Parameters	Test Methods	Results	Units	Limits as per EPA-1986, (SL-96 Schedule-I)
1	Particulate Matter (as PM)	IS: 11255 (P-1)	35.9	mg/Nm ³	75.0
2	Sulphur Dioxide (as SO ₂)	IS: 11255 (P-2)	23.5	mg/Nm ³	-
3	Oxide of Nitrogen (as NOx)	IS: 11255 (P-7)	225.8	mg/Nm ³	710.0
4	Carbon Monoxide (as CO)	USEPA (P-10)	60.5	mg/Nm ³	150.0
5	NMHC	IS: 5182 (P-21)	20.9	mg/Nm ³	100.0
6	Total VOC	IS: 5182 (P-11)	ND	ma/Nm³	

- 1. The results given above are related to the tested sample, for various parameters, as observed at the time of Sampling. The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
- 3. The test report will not be used for any publicity

Remark-PM, NOx, & CO at 15% O2 Correction.

- 4. The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer.
- 5. Responsibility of the Laboratory is limited to the invoiced amount only.

** End of Report **

HNICAL MANAGE



Issued To

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Environmental Consultants and Analytical Laboratory

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Office & Laboratory: 32/41, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA. Contact No.: 9711159210, 9810240837, 9810240678 E-mail: email@ekopro.in, ekoproengineers@gmail.com, website: www.ekopro.in

TEST REPORT

Stack Emission Analysis

Test Report No.: EKO/157/061022

: HINDUSTAN ZINC LIMITED

Plot No. 2 Sector -14
IIE, Sidcul Pantnagar
Rudrapur - (Uttrakhand)

Sample Description : Stack Emission Sample Drawn on : 01/10/2022

Sample Drawn by : EPEPL (Mr. Chandan Sharma)

Sample Received on : 06/10/2022
Time of Sampling (minutes) : 30.0
Sampling Location : NA

Sampling Plan & Procedure : SOP-SE/09

Analysis Duration : 06/10/2022 To 10/10/2022
Source of Emission : Stack Attached To DG Set No. 2

Capacity : 7.5 MW
Operating Load : Normal

Normal Operation Schedule : As per requirement Type of Stack : Metal/Circular

Diameter of Stack (meter) : 1.1

Height of Stack from Ground Level (meter) : 50.0

Height of Stack from Roof Level (meter) : 36.0

Height of Sampling Location (meter) : 24.0 From Ground Level

Type of Fuel Used : HSD
Fuel Consumed per hour : 1600.0 lph
Ambient Temperature (°C) : 30.0
Stack Temperature (°C) : 268.0
Average Velocity of Flue Emission (m/sec) : 12.5
Average Flow Rate (lpm) : 17.6
Control Measures (if any) : Nil

Remark (if any) : Sampling Instrument Used-Stack Monitoring kit APM-610

RESULTS

S.No.	Parameters	Test Methods	Results	Units	Limits as per EPA-1986, (SL-96 Schedule-I)
1	Particulate Matter (as PM)	IS: 11255 (P-1)	39.8	mg/Nm ³	75.0
2	Sulphur Dioxide (as SO ₂)	IS: 11255 (P-2)	24.6	mg/Nm³	
3	Oxide of Nitrogen (as NOx)	IS: 11255 (P-7)	212.5	mg/Nm³	710.0
4	Carbon Monoxide (as CO)	USEPA (P-10)	71.6	mg/Nm³	150.0
5	NMHC	IS: 5182 (P-21)	20.4	mg/Nm ³	100.0
6	Total VOC	IS: 5182 (P-11)	ND	mg/Nm ³	

Remark- PM, NOx, & CO at 15% O2 Correction.

Notes:

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** End of Report **

Analytical Services - Analysis of Environment, Food, AYUSH, Cosmetics, Toy & Material, Leather Products, Petroleum & Building Material Semples in Biological, Chemical, Electrical & Mechanical Disciplines.

Consulting Services - EIA, SIA, EC Compliances, Consultancy for NOC of Ground Water, Hydrogeological Studies, Environmental Audit & other studies, Ground Water & Soil Investigation



Issue Date: 10/10/2022

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TEST REPORT

Workzone Air Quality Monitoring

Test Report No.: EKO/160/061022

Issued To

: HINDUSTAN ZINC LIMITED.

Plot No. 2 Sec-14

IIE, Sidcul Pantnagar

Rudrapur - Uttrakhand

Sample Description

Workzone Air 01/10/2022

Sample Drawn on Sample Drawn by

EPEPL (Mr. Chandan Sharma)

Sample Received on

06/10/2022

Sampling Location

Zinc Casting Machine Floor

Sampling Plan & Procedure

SOP-AAQ/15

Analysis Duration

06/10/2022 To 10/10/2022 ·

Sampling Time

08 Hrs.

25.0

Ambient Temperature (°C)

Average Flow Rate of SPM (m3/min) Average Flow Rate of Gases (lpm)

1.70 1,70

Weather Condition

Clear

Remark (if any)

NA

RESULTS

S. No.	Parameters	Test Methods	Results	Units	Permissible Limits
1	SPM	IS: 5182 (P-4)	0.684	mg/m³	15.0 as per OSHA
2	Sulphur Dioxide (as SO ₂)	IS: 5182 (P-2)	0.009	mg/m³	5.0 as per Factories Act, 1948
3	Nitrogen Dioxide (as NO ₂)	IS: 5182 (P-6)	0.021	mg/m³	6.0 as per Factories Act, 1948
4	Lead (as Pb)	EKO/CHEM/SOP/AAQ- 02	< 0.1	mg/m³	0.15 as per Factories Act, 1948
5	Zinc (as Zn)	EKO/CHEM/SOP/AAQ- 02	< 0.1	mg/m³	-

Notes:

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End of Report

Page 1 of 1

(Authorised Signatory)



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TEST REPORT

Workzone Air Quality Monitoring

Test Report No.: EKO/159/061022

: HINDUSTAN ZINC LIMITED.

Issued To

Plot No. 2 Sec-14

IIE, Sidcul Pantnagar Rudrapur - Uttrakhand

Sample Description

Workzone Air

Sample Drawn on

01/10/2022

Sample Drawn by

EPEPL (Mr. Chandan Sharma)

Sample Received on

06/10/2022

Sampling Location

Zinc Furnace Top floor

Sampling Plan & Procedure

SOP-AAQ/15

Analysis Duration

06/10/2022 To 10/10/2022

Sampling Time

08 Hrs.

Ambient Temperature (°C)

25.0

Average Flow Rate of SPM (m3/min) Average Flow Rate of Gases (lpm)

1.70 1.70

Weather Condition

Clear

Remark (if any)

NA

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S. No.	Parameters	Test Methods	Results	Units	Permissible Limits
1	SPM	IS: 5182 (P-4)	0.811	mg/m³	15.0 as per OSHA
2	Sulphur Dioxide (as SO ₂)	IS: 5182 (P-2)	0.008	mg/m ³	5.0 as per Factories Act, 1948
3	Nitrogen Dioxide (as NO ₂)	IS: 5182 (P-6)	0.019	mg/m³	6.0 as per Factories Act, 1948
4	Lead (as Pb)	EKO/CHEM/SOP/AAQ- 02	< 0.1	mg/m ³	0.15 as per Factories Act, 1948
5	Zinc (as Zn)	EKO/CHEM/SOP/AAQ- 02	< 0.1	mg/m³	-

Notes:

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- 3. The test report will not be used for any publicity/legal purpose.
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- 5. Responsibility of the Laboratory is limited to the invoiced amount only.

End of Report

Issue Date: 05/09/2022



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TEST REPORT

Workzone Air Quality Monitoring

Test Report No.: EKO/118/010922

: HINDUSTAN ZINC LIMITED.

Issued To

Plot No. 2 Sec-14

IIE, Sidcul Pantnagar Rudrapur - Uttrakhand

Sample Description : Workzone Air Sample Drawn on : 30/08/2022

Sample Drawn by : EPEPL (Mr. Chandan Sharma)

Sample Received on : 01/09/2022

Sampling Location : Lead Furnace Top Floor

Sampling Plan & Procedure : SOP-AAQ/15

Analysis Duration : 01/09/2022 To 05/09/2022

Sampling Time : 08 Hrs.

Ambient Temperature (°C) : 28.0

Average Flow Rate of SPM (m³/min) : 1.65

Average Flow Rate of Gases (lpm) : 1.65

Weather Condition : Clear

Remark (if any) : NA

RESULTS

S. No.	Parameters	Test Methods	Results	Units	Permissible Limits
1	SPM	IS: 5182 (P-4)	0.841	mg/m³	15.0 as per OSHA
2	Sulphur Dioxide (as SO ₂)	IS: 5182 (P-2)	0.008	mg/m³	5.0 as per Factories Act, 1948
3	Nitrogen Dioxide (as NO ₂)	IS: 5182 (P-6)	0.022	mg/m³	6.0 as per Factories Act, 1948
4	Lead (as Pb)	EKO/CHEM/SOP/AAQ- 02	< 0.1	mg/m³	0.15 as per Factories Act, 1948
5	Zinc (as Zn)	EKO/CHEM/SOP/AAQ- 02	< 0.1	mg/m³	-

Notes:

- 1. The results given above are related to the tested sample, as received & mentioned parameters.

 The customer asked for the above tests only.
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- 5. Responsibility of the Laboratory is limited to the invoiced amount only.

End of Report

Page 1 of 1

TÈCHAICAL MANAGEI

Issue Date: 10/10/2022



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TEST REPORT

Water Sample Analysis

Test Report No. : EKO/176/061022-A

Issued To

: HINDUSTAN ZINC LIMITED.

Plot No. 2 Sec-14 IIE, Sidcul Pantnagar Rudrapur - Uttrakhand

Sample Description

: Ground Water

Sample Drawn on

: 04/10/2022

Sample Drawn by

: EPEPL (Mr. Chandan Sharma)

Sample Received on

: 06/10/2022

Sampling Location

: From Borewell

Sampling Plan & Procedure

SOP-W/66

Sample Quantity

: 3.0 Litre

Environmental Conditions

: Normal

Analysis Duration

: 06/10/2022 To 10/10/2022

Remark (if any)

NA

	RESULTS								
S. No.	Parameters	Test Methods	Results	Units	Limits as per I (Amd.No.3	Feb-2021)			
1	Colour	IS: 3025 (P-4)	< 1.0	Hazen	Acceptable 5.0	Permissible 15.0			
				Паден					
2	Odour	IS: 3025 (P-5)	Agreeable	<u> </u>	Agreeable	Agreeable			
3	Taste	IS: 3025 (P-7)	Agreeable		Agreeable	Agreeable			
4	Turbidity	IS: 3025 (P-10)	< 1.0	NTU	1.0	5.0			
5	рН	IS: 3025 (P-11)	7.28		6.5-8.5	No relaxation			
6	Total Hardness (as CaCO ₃)	IS: 3025 (P-21)	140.0	mg/L	200.0	600.0			
7	Calcium (as Ca)	IS: 3025 (P-40)	33.6	mg/L	75.0	200.0			
8	Iron (as Fe)	EKO/CHEM/SOP-ICPMS/W-01	< 0.005	mg/L	1.0	No relaxation			
9	Chloride (as CI)	IS: 3025 (P-32)	28.9	mg/L	250.0	1000.0			
10	Sodium (as Na)	IS 3025 (Part-45)	13.8	mg/L		*			
11	Potassium (as K)	IS 3025 (Part-45)	<1.0	mg/L	-	-			
12	Chloramines (as Cl ₂)	IS: 3025 (P-26)	<1.0	mg/L	4.0	No relaxation			
13	Fluoride (as F)	IS: 3025 (P-60)	< 1.0	mg/L	1.0	1.5			
14	Total Dissolved Solids	IS: 3025 (P-16)	324.0	mg/L	500.0	2000.0			
15	Magnesium (as Mg)	IS: 3025 (P-46)	13.6	mg/L	30.0	100.0			
16	Copper (as Cu)	EKO/CHEM/SOP-ICPMS/W-01	< 0.005	mg/L	0.05	1.5			
17	Manganese (as Mn)	EKO/CHEM/SOP-ICPMS/W-01	< 0.005	mg/L	0.1	0.3			
18	Sulphate (as SO ₄)	IS: 3025 (P-24)	30.4	mg/L	200.0	400.0			
19	Nitrate (as NO ₃)	IS: 3025 (P-34)	1.19	mg/L	45.0	No relaxation			
20	Phenolic Compounds (as C6H5OH)	IS: 3025 (P-43)	< 0.001	mg/L	0.001	0.002			
21	Mercury (as Hg)	EKO/CHEM/SOP-ICPMS/W-01	< 0.001	mg/L	0.001	No relaxation			
22	Selenium (as Se)	EKO/CHEM/SOP-ICPMS/W-01	· < 0.005	mg/L	0.01	No relaxation			
23	Arsenic (as As)	EKO/CHEM/SOP-ICPMS/W-01	< 0.005	mg/L	0.01	No relaxation			
24	Cyanide (as CN)	APHA 4500 CN-K	Absent	mg/L	0.05	No relaxation			
25	Lead (as Pb)	EKO/CHEM/SOP-ICPMS/W-01	< 0.005	mg/L	0.01	No relaxation			

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Test R	est Report No. : EKO/176/061022-A Issue Date : 10/10/2022						
26	Zinc (as Zn)	EKO/CHEM/SOP-ICPMS/W-01	< 0.01	mg/L	5.0	15.0	
27	Barium (as Ba)	EKO/CHEM/SOP-ICPMS/W-01	< 0.01	mg/L	0.7	No relaxation	
28	Mineral Oil	IS: 3025 (P-39)	ND (LOQ-0.1)	mg/L	1.0	No relaxation	
29	Ammonia (as Total Ammonia-N)	IS: 3025 (P-34)	< 0.1	mg/L	0.5	No relaxation	
30	Silver (as Ag)	EKO/CHEM/SOP-ICPMS/W-01	< 0.005	mg/L	0.1	No relaxation	
31	Total Chromium (as Cr)	EKO/CHEM/SOP-ICPMS/W-01	< 0.005	_ mg/L	0.05	No relaxation	
32	Total Alkalinity (as CaCO ₃)	IS: 3025 (P-23)	115.0	mg/L	200.0	600.0	
33	Aluminium (as Al)	EKO/CHEM/SOP-ICPMS/W-01	< 0.005	mg/L	0.03	0.2	
34	Boron (as B)	IS: 3025 (P-57)	< 0.25	mg/L	0.5	2.4	
35	Cadmium (as Cd)	EKO/CHEM/SOP-ICPMS/W-01	< 0.001	mg/L	0.003	No relaxation	
36	Anionic Detergents (as MBAS)	APHA 5540	<0.1	mg/L	0.2	1.0	
37	Sulphide (as H₂S)	IS: 3025 (P-29)	< 0.05	mg/L	0.05	No relaxation	
38	Molybdenum (as Mo)	EKO/CHEM/SOP-ICPMS/W-01	< 0.005	mg/L	0.07	No relaxation	
39	Nickel (as Ni)	EKO/CHEM/SOP-ICPMS/W-01	· < 0.005	mg/L	0.02	No relaxation	
40	Polychlorinated biphenyls (PCB)	EKO/CHEM/SOP-GCMSMS/W-02	ND (LOQ-0.00001)	mg/L	0.0005	No relaxation	
41	Polycyclic aromatic hydrocarbons (PAH)	EKO/CHEM/SOP-GCMSMS/W-03	ND (LOQ-0.00001)	mg/L	0.0001	No relaxation	
42	Atrazine		ND (LOQ-0.01)	μg/l	2.0	No relaxation	
43	Alachlor		ND (LOQ-0.01)	μg/l	20.0	No relaxation	
44	Aldrin/Dieldrin		ND (LOQ-0.01)	μg/l	0.03	No relaxation	
45	Alpha HCH		ND (LOQ-0.01)	μg/l	0.01	No relaxation	
46	Beta HCH		ND (LOQ-0.01)	µg/l	0.04	No relaxation	
47	Butachlor		ND (LOQ-0.01)	μg/l	125.0	No relaxation	
48	Chlorpyriphos		ND (LOQ-0.01)	µg/l	30.0	No relaxation	
49	Delta HCH		ND (LOQ-0.01)	μg/l	0.04	No relaxation	
50	DDT(o,p and p,p-Isomers of DDT,DDE and DDD	EKO/CHEM/SOP-GCMSMS/W-01	ND (LOQ-0.01)	μg/l	1.0	No relaxation	
51	Endosulfan (Alpha,Beta & Sulphate)		ND (LOQ-0.01)	µg/l	0.4	No relaxation	
52	Ethion		ND (LOQ-0.01)	µg/l	3.0	No relaxation	
53	Gamma-HCH (Lindane)		ND (LOQ-0.01)	μg/l	2.0	No relaxation	
54	Malathion		ND (LOQ-0.01)	μg/l	190.0	No relaxation	
55	Methyl parathion		ND (LOQ-0.01)	μg/l	0.3	No relaxation	
56	Monocrotophos		ND (LOQ-0.01)	µg/l	1.0	No relaxation	
57	Phorate		ND (LOQ-0.01)	hã/l	2.0	No relaxation	
58	2,4 Dichlorophenoxyacetic acid	EKO/CHEM/SOP-LCMS/W-01	ND (LOQ-0.01)	µg/l	30.0	No relaxation	
59	Isoproturon		ND (LOQ-0.01)	µg/l	9.0	No relaxation	
60	Bromoform	APHA 6232	< 0.05	mg/L	0.1	No relaxation	
61	Dibromochloromethane	APHA 6232	< 0.05	mg/L	0.1	No relaxation	
62	Bromodichloromethane	APHA 6232	< 0.05	mg/L	0.06	No relaxation	
63	Chloroform	APHA 6232	< 0.05	mg/L	0,2	No relaxation	
64	Total Coliform	IS: 1622	Absent	MPN/100ml	Should be Absent	No relaxation	
65	E.coli	IS: 1622	Absent	Per 100mL	Should be Absent	No relaxation	

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Issue Date: 14/10/2022

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TEST REPORT

Water Sample Analysis

Test Report No. : EKO/176/061022-B

: HINDUSTAN ZINC LIMITED.

Issued To

Plot No. 2 Sec-14

IIE, Sidcul Pantnagar Rudrapur - Uttrakhand

Sample Description

Ground Water

Sample Drawn on Sample Drawn by

04/10/2022 EPEPL (Mr. Chandan Sharma)

Sample Received on Sampling Location

06/10/2022

Sampling Location
Sampling Plan & Procedure

: From Borewell

Sample Quantity

: SOP-W/66

Sample Quantity

3.0 Litre

Environmental Conditions

Normal

Analysis Duration

10/10/2022 To 14/10/2022

Remark (if any)

: NA

RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per IS:10500-2012 (Amd.No.3 Feb-2021)	
			-	Acceptable	Permissible	
1	Gross Alpha	IS:14194 (P-2)	< 0.1	Bq/l	0.1	No Relaxation
2	Gross Beta	IS:14194 (P-1)	< 1.0	Bq/l	1.0	No Relaxation

Motoc

- The results given above are related to the tested sample, as received & mentioned parameters.
 The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
- 3. The test report will not be used for any publicity/legal purpose.
- 4. The test samples will be disposed off after 15 days from the date of issue of test report, unless until specified by the customer. Sample received for biological tests will be destroyed after 7 days from the date of issue of test report.
- 5. Responsibility of the Laboratory is limited to the invoiced amount only.

End of Report

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Issue Date: 10/10/2022

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Test Report No.: EKO/176/061022-A

(Authorised Signatory)

Remark: - Standard Applicable only for Drinking Water.

Notes:

- The results given above are related to the tested sample, as received & mentioned parameters.
 The customer asked for the above tests only.
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- 5. Responsibility of the Laboratory is limited to the invoiced amount only.

End of Report

For E

Page 3 of 3

Issue Date: 10/10/2022



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TEST REPORT

Effluent Sample Analysis

Test Report No.: EKO/181/061022

Issued To

: HINDUSTAN ZINC LIMITED

Plot No. 2 Sector -14 IIE, Sidcul Pantnagar Rudrapur - (Uttrakhand)

Sample Description

STP Outlet (After Ultrafiltration)

Sample Drawn on

04/10/2022

Sample Drawn by

EPEPL (Mr. Chandan Sharma)

Sample Received on Sampling Location

06/10/2022

Sampling Plan & Procedure

From STP Plant

SOP-W/66

Sample Quantity

2.0 Litre Normal

Environmental Condition Analysis Duration

06/10/2022 To 10/10/2022

Remark (if any)

RESULTS

S. No.	Parameters	Test Method	Results	Units	Limits as per CPCB (EPR-1986 Schedule- VI Part-A)
1	Hq	IS: 3025 (P-11)	6.82	-	5.5-9.0
2	Total Suspended Solids	IS: 3025 (P-17).	24.0	mg/l	100.0
3	COD (as O2)	IS: 3025 (P-58)	36.9	mg/l	250.0
4	BOD (@27°C for 3 days)	IS: 3025 (P-44)	8.8	mg/l	30.0
5	Total Nitrogen (as N)	APHA 4500 N	3.61	mg/l	100,0
6	Phosphate (as P)	IS: 3025 (P-31)	0.45	mg/l	5.0
7	Ammonical Nitrogen (as N)	APHA 4500 NH3	1.42	mg/l	50.0
8.	Faecal Coliform	APHA 9221 E	50	MPN/100ml	1000.0

Notes:

- 1. The results given above are related to the tested sample, as received & mentioned parameters, The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
- 3. The test report will not be used for any publicity
- 4. The test samples will be disposed off after 15 days from the date of reporting of result, unless until specified by the customer. Sample received for biological tests will be destroyed after 7 days from the date of issue of test report.
- 5. Responsibility of the Laboratory is limited to the invoiced amount only.

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Contact: +91 - 9810243870

Issue Date: 10/10/2022

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TEST REPORT

Noise Monitoring

Test Report No.: EKO/167/061022

HINDUSTAN ZINC LIMITED

Issued To

Plot No. 2 Sector-14 IIE, Sidcul Pantnagar

Rudrapur - (Uttrakhand)

Sample Description

Ambient Noise

Sample Drawn on

01/10/2022

Sample Drawn by

EPEPL (Mr. Chandan Sharma)

Sample Received on

06/10/2022

Sampling Location

Near Main Gate

Sampling Plan & Procedure

SOP-N/01

Weather Condition

Normal

Analysis Duration

06/10/2022 To 07/10/2022

Remark (if any)

RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per "The Noise Pollution (Regulation & Control) Rules, 2000"
- 1	Leq (Day Time)	EKO/CHEM/SOP/S/N-01	71.6	dB (A)	75.0
2	Leq (Night Time)	EKO/CHEM/SOP/S/N-01	64.8	dB (A)	70.0

- 1. The results given above are related to the tested sample, as received & mentioned parameters. The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
- 3. The test report will not be used for any publicity
- 4. Responsibility of the Laboratory is limited to the invoiced amount only.

**End of Report*

For EKORRO ENGINEER



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TEST REPORT

Noise Monitoring

Test Report No.: EKO/165/061022

Issue Date: 10/10/2022

Issued To

: HINDUSTAN ZINC LIMITED

Plot No. 2 Sector-14 IIE, Sidcul Pantnagar Rudrapur - (Uttrakhand)

Sample Description

: Ambient Noise

Sample Drawn on

Sample Drawn by

01/10/2022

EPEPL (Mr. Chandan Sharma)

Sample Received on

06/10/2022

Sampling Location

Near Compressor Area

Sampling Plan & Procedure

SOP-N/01-

Weather Condition

Normal

Analysis Duration

06/10/2022 To 07/10/2022

Remark (if any)

RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per "The Noise Pollution (Regulation & Control) Rules, 2000"
1	Leq (Day Time)	EKO/CHEM/SOP/S/N-01	71.4	dB (A)	75.0
2	Leq (Night Time)	EKO/CHEM/SOP/S/N-01	62.9	dB (A)	70.0

Notes:

- 1. The results given above are related to the tested sample, as received & mentioned parameters. The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
- 3. The test report will not be used for any publicity
- 4. Responsibility of the Laboratory is limited to the invoiced amount only.

End of Report



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TEST REPORT

Noise Monitoring

Test Report No. : EKO/166/061022

Issue Date: 10/10/2022

Issued To

HINDUSTAN ZINC LIMITED

Plot No. 2 Sector-14 IIE, Sidcul Pantnagar Rudrapur - (Uttrakhand)

Sample Description

: Ambient Noise

Sample Drawn on

: 01/10/2022

Sample Drawn by

: EPEPL (Mr. Chandan Sharma)

Sample Received on

06/10/2022

Sampling Location

Back Side of DG Area

Sampling Plan & Procedure

SOP-N/01

Weather Condition

: Normal

Analysis Duration

: 06/10/2022 To 07/10/2022

Remark (if any)

NA

RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per "The Noise Pollution (Regulation & Control) Rules, 2000"
1	Leq (Day Time)	EKO/CHEM/SOP/S/N-01	70.8	dB (A)	75.0
2	Leq (Night Time)	EKO/CHEM/SOP/S/N-01	58.3	dB (A)	70.0

Notes:

- 1. The results given above are related to the tested sample, as received & mentioned parameters. The customer asked for the above tests only.
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- 3. The test report will not be used for any publicity
- 4. Responsibility of the Laboratory is limited to the invoiced amount only.

End of Report

Issue Date: 10/10/2022



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TEST REPORT

Noise Monitoring

Test Report No.: EKO/168/061022

HINDUSTAN ZINC LIMITED

Issued To

Plot No. 2 Sector-14 IIE, Sidcul Pantnagar Rudrapur - (Uttrakhand)

Sample Description

: Ambient Noise

Sample Drawn on

30/09/2022

Sample Drawn by

: EPEPL (Mr. Chandan Sharma)

Sample Received on

06/10/2022

Sampling Location

East Side of Canteen In New Plant

Sampling Plan & Procedure

SOP-N/01

Weather Condition

: Normal

Analysis Duration

: 06/10/2022 To 07/10/2022

Remark (if any)

RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per "The Noise Pollution (Regulation & Control) Rules, 2000"
1	Leq (Day Time)	EKO/CHEM/SOP/S/N-01	70.2	dB (A)	75.0
2	Leq (Night Time)	EKO/CHEM/SOP/S/N-01	59.8	dB (A)	70.0

Notes:

- 1. The results given above are related to the tested sample, as received & mentioned parameters. The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
- 3. The test report will not be used for any publicity
- 4. Responsibility of the Laboratory is limited to the invoiced amount only.

End of Report

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TEST REPORT

Noise Monitoring

Test Report No.: EKO/171/061022

Issue Date: 10/10/2022

Issued To

: HINDUSTAN ZINC LIMITED

Plot No. 2 Sec-14 IIE, Sidcul Pantnagar Rudrapur - Uttrakhand

Sample Description

Workzone Noise

Sample Drawn on

03/10/2022

Sample Drawn by

EPEPL (Mr. Chandan Sharma)

Sample Received on

06/10/2022

Sampling Location

Zinc M&C Area

Sampling Plan & Procedure

Weather Condition

SOP-N/01 Normal

Analysis Duration

06/10/2022 To 07/10/2022

Remark (if any)

RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per "The Noise Pollution (Regulation & Control) Rules, 2000"
1	Leq (Day Time)	EKO/CHEM/SOP/S/N-01	71.9	dB (A)	75.0
2	Leq (Night Time)	EKO/CHEM/SOP/S/N-01	64.8	dB (A)	70.0

Notes:

- 1. The results given above are related to the tested sample, as received & mentioned parameters. The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
- 3. The test report will not be used for any publicity
- 4. Responsibility of the Laboratory is limited to the invoiced amount only.

End of Report

Issue Date : 05/09/2022



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TEST REPORT

Noise Monitoring

Test Report No.: EKO/127/010922

: HINDUSTAN ZINC LIMITED.

Issued To

: HINDUSTAN ZING LIWITED

Plot No. 2 Sec-14 IIE, Sidcul Pantnagar Rudrapur - Uttrakhand

Sample Description

Workzone Noise

Sample Drawn on

31/08/2022

Sample Drawn by

EPEPL (Mr. Chandan Sharma)

Sample Received on

: 01/09/2022

Sampling Location

: Lead M&C Area

Sampling Plan & Procedure

: SOP-N/01

Weather Condition

: Normal

Analysis Duration

: 01/09/2022 To 02/09/2022

Remark (if any)

NA

RESULTS

S. No.	Parameters	Test Methods	Results	Units	Limits as per "The Noise Pollution (Regulation & Control) Rules, 2000"
1	Leq (Day Time)	EKO/CHEM/SOP/S/N-01	70.5	dB (A)	75.0
2	Leq (Night Time)	EKO/CHEM/SOP/S/N-01	64.8	dB (Å)	70.0

Notes:

- 1. The results given above are related to the tested sample, as received & mentioned parameters. The customer asked for the above tests only.
- 2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.

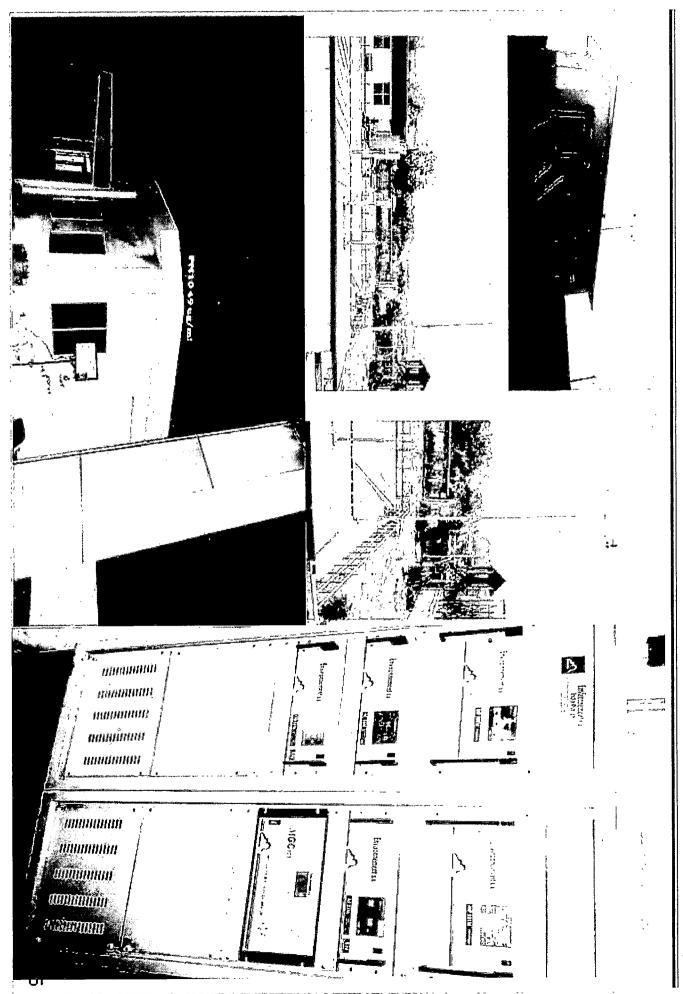
3. Responsibility of the Laboratory is limited to the invoiced amount only.

End of Report

Page 1 of 1

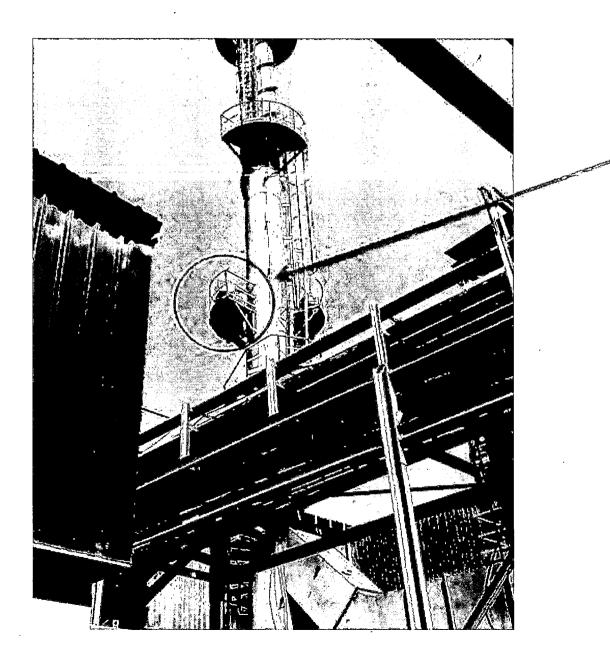
(Authorised Sighalo)

CAAQMs





PH analyzer installed at stack



PM analyzer

ANNIXURE-3

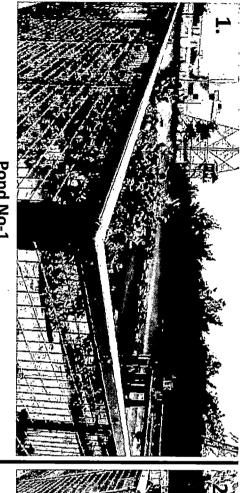
	Ground Water Withdra	awal FY 2022 _°	<u>2</u> 8
Month	Ground Water Withdrawal	UOM	Rain water utilization
Apr-22	5568	Cu.m	0
May-22	5497	Cu.m	153
Jun-22	5142	Cu.m	660
Jul-22	1948	Cu.m	3223
Aug-22	993	Cu.m	2961
Sep-22	1036	Cu.m	2017
			-
Total	20184	Cu.m	9014

All reading recorded in cubic meter.

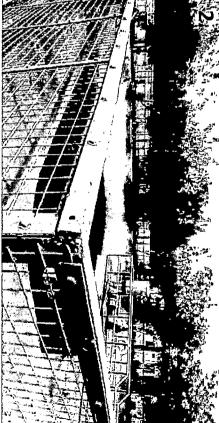
Water Withdrawal Point – Borewell



RAIN WATER STORAGE POND HZL- PANTNAGAR



Pond No-1



Pond No- 2



Pond No- 3

Pond No- 4

Details of CSR & CER activities carried during FY 2022-23

Supported 25 students of 10 th and 12 th class for sending to Udaipur Vidhya Bhawan one month long summer camp in the month of May 22 EDUCATION Support to Unchi Udaan (IIT entrance preparation) project at Udaipur Rajasthan. Till date 25 students were qualified and studying since 2018 onwards total 6 batch were running. All the expenditure related to boarding, lodging etc. being born by the company. Presently 12 students were studying in batch 4 to 6 th Running mobile health clinic van in 25 villages on daily basis. Providing free doctor consultation, free medicine distribution etc. being done through this project. Daily in one village this camp will be held. Strenghning of Self Help Group by 33 villages and covered around 3000 families. This project (Sakhi) was implementing through Manjari Foundation. Started in the year 2017 and continuing. This year also celebrated internation women day at Jainagar along with villagers. Milcro Enterprises Providing support to SHG women of Sakhi Project in Micro Enterprise Development in poultry, dairy products, duck forming, Mushroom cultivation & stitching etc. Providing Training programme to rural youth in Skilling development in Auto Mobile services of two and four wheeler training through TATA motors 138886 118088 1156088 1156088 1156088 1156088 1156088 1156088 1156088 1156088 1156088 1156088 1156088 1156088 1156088 1156088	S. No.	KEY ACTIVITIES	ACTIVITY DESCRIPTION	AMOUNT SPEND
EDUCATION Support to Unchi Udaan (IIT entrance preparation) project at Udaipur Rajasthan. Till date 25 students were qualified and studying since 2018 onwards total 6 batch were running. All the expenditure related to boarding, lodging etc. being born by the company. Presently 12 students were studying in batch 4 to 6 th Running mobile health clinic van in 25 villages on daily basis. Providing free doctor consultation, free medicine distribution etc. being done through this project. Daily in one village this camp will be held. Strenghning of Self Help Group by 33 villages and covered around 3000 families. This project (Sakhi) was implementing through Manjari Foundation. Started in the year 2017 and continuing. This year also celebrated internation women day at Jainagar along with villagers. Providing Training programme to rural youth in Skilling development in Auto Mobile services of two and four wheeler training through TATA motors	Н		Supported 25 students of 10^{th} and 12^{th} class for sending to Udaipur Vidhya Bhawan one month long summer camp in the month of May'22	138886
Running mobile health clinic van in 25 villages on daily basis. Providing free doctor consultation, free medicine distribution etc. being done through this project. Daily in one village this camp will be held. Strenghning of Self Help Group by 33 villages and covered around 3000 families. This project (Sakhi) was implementing through Manjari Foundation. Started in the year 2017 and continuing. This year also celebrated internation women day at Jainagar along with villagers. Providing support to SHG women of Sakhi Project in Micro Enterprise Development in poultry, dairy products, duck forming, Mushroom cultivation & stitching etc. Providing Training programme to rural youth in Skilling development in Auto Mobile services of two and four wheeler training through TATA motors	2	EDUCATION	Support to Unchi Udaan (IIT entrance preparation) project at Udaipur Rajasthan. Till date 25 students were qualified and studying since 2018 onwards total 6 batch were running. All the expenditure related to boarding, lodging etc. being born by the company. Presently 12 students were studying in batch 4 to 6 th	1156088
Women Empowerment Women Empowerment Micro Enterprises Sustainable Livelihood Strenghning of Self Help Group by 33 villages and covered around 3000 families. This project (Sakhi) was implementing through Manjari Foundation. Started in the year 2017 and continuing. This year also celebrated internation women day at Jainagar along with villagers. Providing support to SHG women of Sakhi Project in Micro Enterprise Development in poultry, dairy products, duck forming, Mushroom cultivation & stitching etc. Providing Training programme to rural youth in Skilling development in Auto Mobile services of two and four wheeler training through TATA motors	ω	Health, Water & Sanitation		1342420
Micro Enterprises poultry, dairy products, duck forming, Mushroom cultivation & stitching etc. Sustainable Livelihood services of two and four wheeler training through TATA motors	4	Women Empowerment	Strenghning of Self Help Group by 33 villages and covered around 3000 families. This project (Sakhi) was implementing through Manjari Foundation. Started in the year 2017 and continuing. This year also celebrated internation women day at Jainagar along with villagers.	4554121
Sustainable Livelihood Providing Training programme to rural youth in Skilling development in Auto Mobile Services of two and four wheeler training through TATA motors	Œ	Micro Enterprises	Providing support to SHG women of Sakhi Project in Micro Enterprise Development in poultry , dairy products, duck forming, Mushroom cultivation & stitching etc.	502952
	6	Sustainable Livelihood	Providing Training programme to rural youth in Skilling development in Auto Mobile services of two and four wheeler training through TATA motors	104080

On-Going CSR Activities at PMP FY2022-23

distribution, free eye check camp & goggle distribution etc. being done through this project. Daily in one village this camp will be held. Health, Water & Sanitation- Running mobile health clinic van in 25 villages on daily basis. Providing free doctor consultation, free medicine



On-Going CSR Activities at PMP FY2022-23

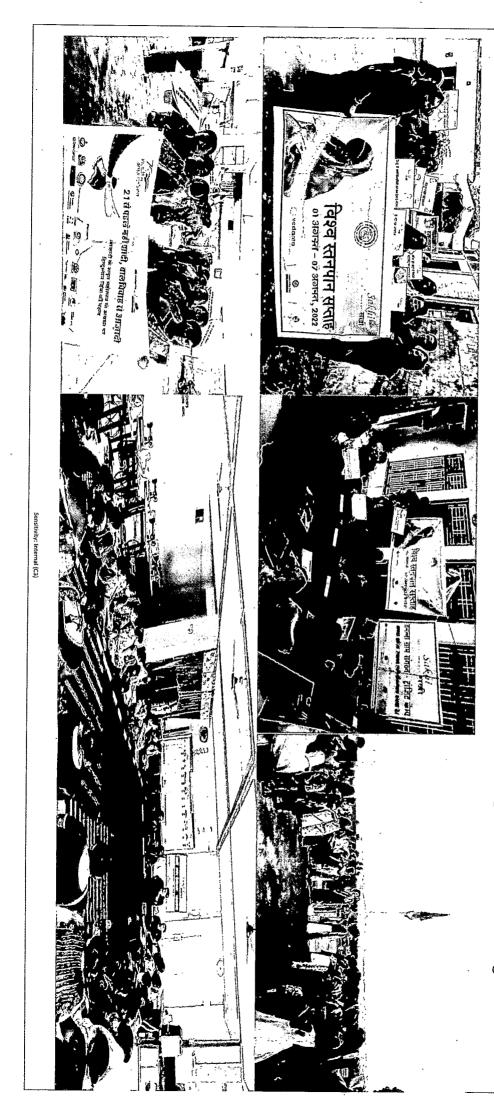
Charging system. Braking System of two & four wheeler. Job card Filling Process. Multimeter usage & checking relay & fuse Youth Skill Development Program-Imparting Skill training program with TATA STRIVE. Two wheeler clutch Dismantling & Assembly. Two Wheeler



Sensitivity: Internal (C3)

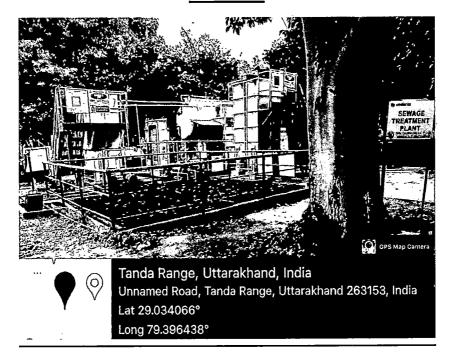
On-Going CSR Activities at PMP FY2022-23

feeding weak from $1^{
m st}$ aug to $7^{
m th}$ aug in 7 villages and V.O.s. Celebrated independence day with sakhi umang federation on $15^{
m th}$ aug 2022. Women Empowerment- Strengthening of Self-Help Group by 33 villages and covered around 3000 families. Celebrated international breast

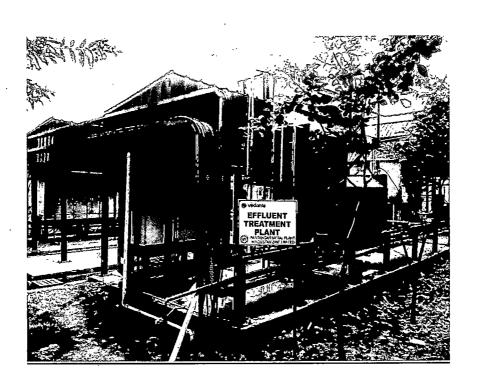


ANNEXURE-5

STP PLANT



ETP PLANT



	PHOTOGRAPHS OF	HAZARDOUS WASTE STORAGE YARD
S. No.	Name of the waste	Photographs _.
1.	Zinc Dross Storage Yard	
2.	Lead Dross Storage Yard	LEAD DROSSSTORAGE STATE STATE TO THE STATE OF THE STATE O
3.	Used Oil Storage Yard	SALITATION ALTONOMICS AND ALTONOMICS

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ENVIRONMENTAL DATA

- 1. Date of Information Update: 8 Nov.2012
 2.,Name of the Company (write in bold):
- 3. Address: Pantnagar Zinc-Lead M&C Plant, Plot No- 283, Sec-14, IE, SIDCUL, Pantnagar, Uttarakhand-263153
- 5. Total Capacity/Production: Designation: Lead Environment/Em by

Contact Number: #455021385/9549545474

Ξ			
Current week		Previous week	Weeks
TO: 7 New 2022	2702:2012	From: 25 01 1012	Date
1770.82	1771.31	ביי ויממן	Raw materials
/680.7	48:10: 78	Courts	Dod
11722	2 12/2/69	Wastes	And the second s

- 6. Production Flow Chart Indicating points of waste (Solid, Liquid & gaseous)generation:
 7. Consent under Air and Water Act Issued on DS:02.2021..., valid upto: 31.03.2025... Conditions of waste water-discharge:

Discharge	3
	Monitorina
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916	Benerado
7	n per day ()
	(KLD) : Trai
	de Efflueni
	NIL
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	on-Trade F6
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(III) Quality of Translation	STP Approx.15KLD Law		ETP NIT.
1	Land (HORTICULIURE USAGE)	1	(Drain/sewer/Land)
The state of the s	30 KLÞ	l	Type & Capacity of ETP/STP
	PRIMARY)	Type of treatment in ETP/STP

Prescribed Limit Prescribed parameter 6-5-90 (250 200 Fecal billion

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Condition	ETP/STP with date	Output from the	input to ETP/CTP
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	òô òo	150-250	
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Dranalla	(III) Quality of Air Emission (Specification)		The same of the sa	D.G Ser-3	2-130 600		T-19c O.O.	76.5	Nos.	Holding E.	""Backlon Purnace-2 (30 MT)	Indicator Company	""GECTION FURNACE-1 (30 MT)		erc.	Lapacity of Boiler/ Furnace/TPH
A SUBABIOLOGICA AND	F	100		170	5	100	HC.	1100	107	Constitution	Floring	7	Flighting		Fuel Type	
offurtants for the in			ر ا	150 KEY EVES		150 95/KE	2	V 1-7-1/00-4	2 6/ /1	0000 700	AFAD FL.	1000 AV	3777	(Litra or KR/day)	Consumption	Fuel
dustry).	CHICAGOLE GROCEGOK	The state of the s	STATE OF STREET	Acoustic	enciosure &Stack	Acoustic	1 0 0 0 0	Bag filter & Stack		Bag filter & Stack		Bag filter & Stack		Centrol System	Air Pollution	
	00.000	20 20 20 20	20 10101	5	30 Mater		Noter	20.1	and total of	30 200		30 Mater	ground	Meters above	Stock Height(a)	
	1 450 KVA		WW ST		7.5 MW		,		1		f		D.G sets	Capacity of		

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Charles and Charles	B.(a) Authorization	0.000	Latest Monitoring results of Air Emission with Dave	D,G Set-2	Latest Monitoring results of Air Fair	D.G Set-1	Latest Monitoring results of Air Emission	Holding Furnaces (180MT) x 5 Nov .	Latest Monitoring results of Air Emission	mouction Furnace-2 (30 MT)	Latest Monitoring results of Air Emission with Daniel	Induction Furnace-1 (30 MT)	Latest Monitoring results of Air Emission	- reaction Limit	Proceeding 1	. rener hardweletz	Prescribed named and an arrangement for the industry):
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		ſ	24.6	- /- ^	73.5		ZR		.11.5	2	T4. 81	3 3	250	200	(EMP/AM)	3	industry):
	1	•	212.5		225.8		Z		45.5		50. K		710	(EWN/SILL)	NO.		
	ľ		ſ,		1		, NR				ヘー・ロ	;	0	(mg/Nm3)	9		
	1		71.6		60.5		2		へ0,5		√02	1,00	(50	(mg/Nm3)	8		

150 170 cm. 03 02 1071 --- valid upto 31.03.2025 boundary Móvement) Rules 2016,

4						5			
		(c) Use	6	5	4	3	2	1	2
	Hazardous Chemicals	(c) Use of Hazardous Chemicals:	33.1	7.4	9.2	1 6.2	5.2	\$ 5,1	Category of Waste
100 mm - 100	hemicals	Chemičals :	1,750.		511.965	3386,5.	1.180		Quantity of
	Quantity Used			=	7			PERMANENT STORMS FOR	Mode of Storage Conditions : IN April 2011 LUL 31 Oct 202
	Sar	Jo	-	10000			3 6	Storage (MT)	April 2017 1111 31 Oct
Handling	fety Measures for Storage &	Sharet Oil & waste management		Ü	HZL, Smeltus	2	Bravel oil & worth management	Final Disposal (Name of Agency)	2022

ENVIRONMENTAL DATA

- 1. Date of Information Update: %:N/ov 2022
- 2. Name of the Company (write in bold):
- HINDUSTAN ZINC LIMITED
- , 3. Address :Pantnagar Silver Refinery Plant, Plot No- 2&3, Sec-14, IIE, SIDCUL, Pantnagar, Uttarakhand -263153

Designation : lead Environment / Env Engl

Contact Number: 7455021385/4599545479

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- 100	Section . S.	* * *	
6. Production Floa	Current week	Previous week	Weeks
6. Production Flow Chart Indication	From: 1 Nov 25122	To: 3/ 04 2022	Date
	13.%	-53 910 File	Raw materials
	7.582	Produces	
Ţ		Wastes	

- 6. Production Flow Chart Indi<u>ca</u>ting points of waste (Solid, Liquid & gaseous)generation : 7. Consent under Air and Water Act Issued on..2<u>9.93.393......</u> valid upto..3<u>103, 29.15...</u>
- Conditions of waste water discharge:
- Quantity of Effluent generation per day (KLD) : Trade Effluent:_N.L. - Non-Trade Effluent: 210 KLA

-	ACHTER TO .		•	-
	-4.89			
	STP	613		3
	"Approx. 15 KLD	NIL	Quantity (KL)	Monitoring of ETP/STP:
	Land (Hartierture wase)	- 1	Mode of ((Drain/sew	
	30 KLD -	416/2110 to 117/21	Type & Capacity of Emplement	Non-Trade Effluent: 2.10 KLA
Lemma	Petraneu	Primary/Secondary/Ternary)	Type of tease	rade Effluent: 210 KLP

Output from the ETP/STP with date Prescribed parameter Prescribed Limit input to ETP/STP | Quality of treated Effluent/Sewage (specify the relevant pollutant) : | bed parameter | pH | (mg/L) 6.82 65.90 6.5-9.0 250 8.8 150-250 400-500 \$25g 500,000 (000-200 Ŷeo 24 √ loso

7(b) Conditions of Air Emissions:

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	20 111 201	HOOD & SCHOK			
′	30 Meter	Fume collection	1	NA	NOX SCIUDDET SYSTEM
1		nood & Bag filter	TANK THE		NO. Cambridge
	_	Fume collection	~70UL/08"	HSD/NG	COOC FORMACE T MO (41PD X 1)
(hood & Bag filter			BBOC Elimana 1 No 14Tha
	swex)	Furne collection	~ ~ 625 kw	=	Juliker Fulliace- I No (41PD x 1)
1	· (Committee	hood & Bag filter			indicate Control of the Control
	Wieter	Fume collection	~ 200 kw each	たいたかんした	TPD + 1 x1.5 TPD)
J	40 140	mood & Bag filter	THI LOTS	E1	Induction Furnaces-3 Nos. (2 x 1
		Fume collection	150/4× 0 /000	=	
,	•		11.00		Cupel Furnace-2 Nos (3 v 3 s ser)
			" ALT MAN COUNT.	har 1/ Co.	
4.000	Siegno	- 1	CIO III	エヘフーロハバ	Noble Furnace-1 No (14 MT)
2000	victers above	control system	(Ltrs or Kg/day)		
Canacity of	June Suria	_	Consumption	adk ion.	etc.
	יייייייייייייייייייייייייייייייייייייי	┙	Fue)	E to Time	Capacity of Bollet/ Furnace/TPH
				sures:	Calificoaler to minor an account

Quality of Air Emission (Specify the relevant pollutants for the Industry)

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7	- 12 m		12		-	7. J.	7	53	
ω	2	μ.	Ş	(b) Au	8.(a) A issued	NOx 5	Silver	Prescri	riesch
7.2	5,2	5.1	Category of Quantity of Waste (MT)	thorisation gra	uthorization is on05.02.,282.	NOx system Stack	Silver Process Stack Oct 2022	Prescribed Limit	rrescribed parameters
<u>Z</u>	NIL	2.0		inted for HW go	sued under the	NOx system Stack Oct 2021	Silver Process Stack Con 2012	in the cast Alle Early	rs
=	, 11	Resmoved strap facting	Mode of Storage	(b) Authorisation granted for HW generation under the conditions:	8.(a) Authorization issued under the Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016, issued on 38.02.7802	sion with Date	sion with Date		
را لار	S) 5	Capacity of R Storage (MT)	nditions :	Jastes (Manage	29.95 12.6	33.7. 11.5	. 150_	(mg/Nm3)
	ŧ		Capacity of Remaining · Storage (MT)		ment & Trac		#1.75		(mg/Nm3)
				4.4	Árepunogs	58.3	45.7	7.10	(mg/Nm3)
1		1.	sposal (Name	<i>;</i> *	Movement)	0.1/-	0.13	10	Pb dq
	•		Final Disposal (Name of Agency)		Rules 2016,	202	-7.0°2	150	(E-10/20)

	-	Hazardous Chemicals	(c) Use of Hazardous Chemicals:
		Quantity Used	
•		Safety Measures for Storage Handling	

7.4