

Ref: HZL/ Maton /MoEF/2021-22/ 85

Date: 29.11.2022

To,

**The Deputy Director (S)/ Scientist- C,
Ministry of Environment, Forests & Climate Change
Government of India,
Integrated Regional Office,
A- 209 & 218, Aranya Bhawan, Jhalana Institutional Area,
Jaipur (Rajasthan) – 302004.**

Sub: Six Monthly Compliance Report of EC for April'22 to September'22.

Ref: Environment Clearance vide No. J-11015/169/2009-IA.II (M) dated 17.03.2010.

Sir,

Please find enclosed Compliance Status Report of the conditions of Environmental Clearance for the period of April'22 to September'22.

Thanking you.

Yours Sincerely,

For Maton Rock Phosphate Mine



(Ravi Kumar Dave)
Mine Manager

CC to : 1. Scientist 'D' & In-Charge (Zonal Office), Central Pollution Control Board, Zonal Office (Central), 3rd Floor, Sahkar Bhawan, North T.T. Nagar, BHOPAL-(MP)-462 003
2. Member Secretary, Rajasthan Pollution Control Board, 4 - Institutional Area, Jhalana Dungri, JAIPUR (RAJ.) - 305001.
3. The Regional Office, Rajasthan State Pollution Control Board, F-470, Near UCCI Building, Mewar Industrial Area, Udaipur (Raj.) -313001.
4. Office Copy (Env. Cell)

Hindustan Zinc Limited

Maton Rock Phosphate Mines.

P.O. - Maton, Th. - Girwa, Udaipur (Rajasthan) - 313003

Tel. : (+91-294) 2342093, Fax : + (91-294) - 2342092

Registered Office - Yashad Bhawan, Udaipur (Rajasthan) - 313004

www.hzlindia.com

CIN : L27204RJ1966PLC001208

Six Monthly Compliance Report of Environmental Clearance

Name of the Project : Maton Rock Phosphate Mining Project of M/s Hindustan Zinc Ltd.

Project Code :

Clearance Letter No.: J-11015/169/2009-IA.II(M) Dt. 17/03/2010

Period of Compliance Report: April'22 to September'22

Specific Conditions:

S.No.	Conditions	Compliance Status
i	Environmental clearance is granted subject to final outcome of Hon'ble supreme court of India in competent petition (c) No 412/2004 in IA No 833 in writ petition (c) no 202 in 1995, as may be applicable to this project.	The mine lease is not a part of the 261 mine leases covered in contempt petition No. 412/2004 in IA No. 833 in WP No. 202 in 1995 (Annexure 1).
ii	The environmental clearance is subject to approval of the State Land use Department, Government of Rajasthan for diversion of agricultural land for non-agricultural use.	The land was acquired under the LA Act, 1894 for mining purpose. As per the circular from GoR Dt. 1997, any land acquired under the said act for the stated purpose is deemed approved for the said purpose and need not again have to seek approval for diversion of land so acquired (Annexure 2A & 2B).
iii	The project proponent shall obtain Consent to Establish and Consent to Operate from Rajasthan State Pollution Control Board and effectively implement all the conditions stipulated therein.	The consent to establish was granted by the RSPCB vide Letter No. F(Mines)/Udaipur (Girwa)/13(1)/2009-2010/8003-8007 Dt. 17.03.2011 The latest Consent to Operate, granted by RSPCB vide No. F(Mines)/ Udaipur(Girwa)/1828(1)/2015-2016/973-977, Dt. 05/06/2020 is valid till 31/03/2023
iv	The project proponent shall ensure that no natural watercourse and/or water resources are obstructed due to any mining operations. Adequate measures shall be taken for protection of the 1 st order and 2 nd order streams, if any emanating, passing through the mine lease during the course of mining operation.	No natural watercourse or water resources are obstructed due to mining operation as on date. During the future course of operation, if any natural water course is likely to be affected, suitable measures will be taken to ensure minimum obstruction to flow. Further, there are few 1 st order streams emanating from the mine lease area that have been protected.
v	The mine working will be restricted to above water table. For working below water table, a detailed hydro - geological study shall be carried out taking into account the mine water discharge, management of discharged water and prior approval of CGWA shall be obtained. The hydro- geological study report along with approval of CGWA will be submitted to the Ministry of Environment and Forests for reviewing the conditions of environment clearance	The mining operation is presently limited to above ground water level and as per IBM approved latest Scheme of Mining 2020-21 to 2024-25 it will not intersect the Ground Water Table up to 31 March 2025. Detailed hydro-geological study has been conducted to assess the hydro-geology of the area. Present depth of mining is 573 mRL the ultimate depth of mine pit is envisaged upto 520mRL where as depth of ground water table is 523 mRL & 527 mRL during pre and post monsoon respectively. It is expected that on

S.No.	Conditions	Compliance Status
		(hangwall) is also diverted to mine pit through peripheral garland drains which prevents water to move out of ML area. The de-siltation of mine pit takes place along with mining schedule of deepening of mine.
	Garland drain, settling tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and over burden dumps to prevent runoff water and flow of sediments directly into the Ahar River, the Udaisagar pond, the Bagdara Talav and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains and desilted at regular intervals.	The rainwater runoff is also generated on overburden dump (OB) site. The OB dump is situated in a natural valley and so far it's lower edges/ levels is situated below the top of valley level. Hence, it has not reached to it's maximum extent towards edges. Thus the runoff is diverted through natural slopes within valley into a siltation pond cum recharging pit measuring 150m x 60m x 1.5m, situated at the lowest point of dump. The accumulated silt of this pit is removed and stacked on OB dumps before commencement of every monsoon. In addition to above, a new approved dumping and its garland drain is under progress. In order to comply with the condition, HZL applied for obtaining NoC for construction of Anicuts on dt. 10.01.2011, but during discussion, officials referring WRD order dt. 26.07.2010, suggested HZL to opt for other means of recharge (copy of letter for NoC is enclosed as Annexure -4).
ix	Dimension of the retaining wall at the toe of over burden dump and OB benches within the mine to check run-off and siltation shall be based on the rain fall data.	Since, the OB dump is situated in a natural valley and so far it's lower edges/ levels is situated below the top of valley level. Hence, it has not reached to it's maximum extent towards edges. Retainer wall is constructed at strategic location along with suitable garland drain to ensure all rain water collection into recharge pit. In addition to above, a new approved dumping and its retaining wall is under progress.
x	Plantation shall be raised in an area of 122.3 ha including a 7.5 m wide green belt in safety zone around the mining lease by planting the native species around over burden dumps, along the roads etc. in consultation with the local DFO / Agriculture Department. The density of the trees should be around 1500 plants per ha. Green belt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.	Out of mine lease area of 143.13 ha, only 114.44 ha. has been acquired along & an additional land of 80.25 ha acquired outside the mine lease. Plantation has been taken up in progressive manner to cover 33% area of the total land into green belt, including at least 7.5m wide greenbelt in the safety zone. About 8000 plants, including plantation on matured part of waste dump, have been planted during running FY 2021-22. Till date about 76,000 saplings have been planted with survival rates of above 90%. Further, the progressive green belt development plan has been prepared considering further plantation over OB dumps on maturity and shall be implemented over the life of mine.

S.No.	Conditions	Compliance Status
xvi	competent authorities for drawl of requisite quantity of water required for the project.	water is sourced through tankers from water suppliers. An application for withdrawal of ground water through tube well is filed before CGWA 01.01.2010 (revised application submitted on 16.07.2014) and approval awaited (Annexure - 6). Copy of the same will be submitted on receiving of the same.
xvi	Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board	A proposal for augmentation of Ground water resource has been submitted to CGWB/CGWA. In the mean time of processing our application, CGWA has revised it's guidelines. On advice of CGWB, Jaipur, HZL has submitted fresh application on 16.07.2014 to CGWA/CGWB in accordance with revised guidelines & designs for augmentation of ground water resources. Recharge measures will be implemented immediately on getting nod from CGWB/CGWA.
xvii	Vehicular emissions should be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.	All vehicles entering the mine premises are checked for PUC certificate. All vehicles used for mining operations undergo periodic maintenance and ensure controlled emissions. All mineral transportation is carried out by covered trucks only and not overloaded.
xviii	Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented	Controlled blasting is practiced and ground vibration is measured as per guidelines of DGMS & the Director Explosive. The recommendations of CIMFR for blasting is implemented and the vibrations measured are within the stipulated limits.
xix	The project proponent shall take all mitigative measures during mining operations to ensure that the buildings / structures in the nearby areas shall not be affected due to blasting	Controlled blasting is practiced and ground vibration is measured as per guidelines of DGMS & the Director Explosive. The recommendations of CIMFR for blasting is implemented and the vibrations measured are within the stipulated limits. Hence there have been no impacts on the buildings/structures in the nearby areas due to blasting. Blasting was not carried out during reporting period.
xx	Drill shall either be operated with dust extractors or equipped with water injection system.	Wet drilling is followed during mining (Annexure - 7).
xxi	Mineral handling area shall be provided with the adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.	Loading, unloading points are sprinkled with water using mobile tanker to ensure effective dust control. At transfer points of the crusher, water sprinklers are installed.

S.No.	Conditions	Compliance Status
	display board at the project site at a suitable location near the main gate of the Company in public domain. The circular No. J-20012/1/2006-IA.II(M) dated 27.05.2009 issued by Ministry of Environment and Forests, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance	
xxvii	A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval	The same shall be complied prior to closure.

General Conditions

S.No.	Conditions	Status
i	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.	Complied. There is no change in mining technology.
ii	No change in the calendar plan including excavation, quantum of mineral Rockphospahte and waste should be made.	Calendar plan, as per approved mine plan, is being adhered to.
iii	At least four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM (Particulate matter with size less than 10 μm i.e., PM ₁₀) & NOx monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.	Five monitoring locations based on Meteorological data have been established in and around the mining lease area in the core and buffer zone. The AAQ is monitored every fortnightly for PM10, PM2.5, SOx, NOx and the results submitted to RSPCB and MoEF.
iv	Data on ambient air quality RSPM (Particulate matter with size less than 10 μm i.e., PM ₁₀) & NOx should be regularly submitted to the Ministry including its Regional office located at Lucknow and the State Pollution Control Board / Central Pollution Control Board once in six months.	The AAQ monitoring results are submitted to MoEF every six monthly.
v	Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.	Water sprinkling using mobile tankers is undertaken regularly to arrest fugitive emission.
vi	Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.	All machines undergo periodic maintenance. All mine workers are provided with ear plugs with at least 25dB(A) noise reduction to ensure that the exposure to noise is always below 85dB(A). Work zone noise monitoring is carried out as defined.

S.No.	Conditions	Status
	the status of compliance of the EC conditions, their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the Ministry of Environment and Forests, Lucknow, the respective Zonal Officer of CPCB and the SPCB.	
xiv	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad/ Municipal 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 website of the Company by the proponent.	Complied
xv	The State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and the Collector's office/ Tehsildar's Office for 30 days.	Complied.
xvi	The environmental statement for each financial year ending 31 st 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 along with the status of compliance of EC conditions and shall also be sent to the Regional Office of the Ministry of Environment and Forests, at Lucknow by e-mail.	Environment statement in Form V is submitted periodically as stipulated. Environmental statement for the year 2021-22 was submitted on 24.09.2022.
xvii	The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment and Forests at http://envfor.nic.in and a copy of the same should be forwarded to the Regional Office of this Ministry located at Lucknow.	Advertised in two News papers named Dainik Bhashkar and Rajasthan Patrika on 19.03.2010 (Annexure – 12).

Appendix I

RECEIVED
MAY 10 1968
SCHOOL OF LIBRARIES, UNIVERSITY OF TORONTO LIBRARY
SERIALS SECTION

LIBRARY USE

RECEIVED FROM LIBRARY AND DOCUMENTATION SECTION
LIBRARY AND INFORMATION SCIENCE 2000 CLASS AND INFORMATION
SCIENCE AND LIBRARY EDUCATION LIBRARY AND DOCUMENTATION
SECTION 2000 CLASS AND INFORMATION SCIENCE LIBRARY AND DOCUMENTATION
SECTION 2000 CLASS AND INFORMATION SCIENCE LIBRARY AND DOCUMENTATION

LIBRARY USE

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SCIENCE AND LIBRARY EDUCATION LIBRARY AND DOCUMENTATION
SECTION 2000 CLASS AND INFORMATION SCIENCE LIBRARY AND DOCUMENTATION

मध्यवाप्ति नियमावली प्रपत्र 10 (भूमि प्राप्ति नियमावली अनुच्छेद 96)

राजी नाम। निश्चयानन्द

ग्राम/हस्ती¹ उत्तराखण्ड जटाहा राज्य संसदी (राजीनामे पर हस्ताक्षर करने वाले पक्ष विभिन्न) एतद् वारा मिस्टर निविल्ट भूमि की ग्रामपाली और मुआवजे की रकम के लिए मापनी सहमति प्रोपित करते हैं और किसी तरह का हमारे द्वारा उठाया तुमा दावा या हमारी गोई अधिका मांग (बलें) गिरी करने पर दायर की गई, तुरन्त रह रागभी जावे।

ज़िला	वाहसीन	गाँव	जायदाद/ हाफ़ा फ़ा विवरण	मुआवजे का विवरण	
				वार्षिक ग्रामपाली लगान जो छूट होगा	नकद मुआवजा
उत्तराखण्ड	गिर्वाल	गाँव	1477 1 रुपये	100/- 4.12/- 4.35/- गाँव	100/- 7200.00 1125.50 3850.10 <hr/> 15405.80
					(17. के 27 दिसं बर 2006) PROJECT MANAGER हिन्दुस्तान इंडिया (ग्रामपाली का उदाहरण) ग्राम प्रशासनीको बड़ा पाठी-पुरा, काशी अवारु 109-213024
					<i>प्रभावित वार्षिक लगान उदाहरण प्रभावित वार्षिक लगान उदाहरण</i>

मापनी वार्षिक लगान वार्षिक में या अक्षय व सवाल किये जाते हैं या जब चूका विना मुआवजा

תְּהִלָּה וְבָשָׂר

उपरितः - समस्त विजया
विजयान् ।

विषयः— भूमि का विवरण तथा उपयोग, इसकी विकास की विधि तथा उपयोग की विधि।

महोदय,

केंद्रोप भूमि अरा वा गोपनीय, 1894 के उत्तरी समय
पर विश्वास भरकर कार्य के विषय में इसके जाता है
है। सर्वाधिक विभाग द्वारा गोपनीय विषय के बारे में जाता है।
अर्थात् जारी कर लक्षण विषय के भूमि विभाग अदा करने के
प्रश्नात् भूमि का कल्पना सर्वाधिक विभाग द्वारा ने निर्दा जाता है।

अब प्रस्तुत यह टार्का है कि विद्युत वर्षा भवन को बाहर से न
पूर्ण रूप से जलाया गया, 1956 की शुरुआत से विद्युत वर्षा भवन
का उपयोग अभी तक जारी रखा गया है।

WPA
3/3

उज्जत लंगिध वैय यह इण्डु बाबा मा २३ वा २४ वर्षी दिन गोपनी
भूमि के द्वितीय भूमि अपार्वती अधिकारी, १९२४ वे अन्तर्राष्ट्रीय खेलों की
बन्नतों और ऐसी भूमि को तुलना के बारे तो उन्नीस दिन उद्घोषणा के दिन
प्राथितन की आवश्यकता नहीं है। अन्तर्राष्ट्रीय खेलों की अन्तर्राष्ट्रीय खेलों की
अन्तर्राष्ट्रीय एक विश्व बाबा भूमि की बाबा भूमि की अन्तर्राष्ट्रीय खेलों की
उत्तराप्त बाबों जाती है, अन्तर्राष्ट्रीय खेलों की अन्तर्राष्ट्रीय खेलों की

१. विजयालक्ष्मी, राजनीति एवं सामाजिक अध्ययन, दिल्ली।

卷之三

ATTACH-3



HINDUSTAN ZINC LIMITED
Maton Rock Phosphate Mine
Tehsil - Girwa, Distt. Udaipur (Raj.) - 313003
Phone : - (0294-2342093)

Dt 14.07.2014

Ref: HZL/Maton/CGWA/MiningNew/2014-15/ 42

To,

The Member Secretary,
Central Ground Water Authority,
West Block-II, Wing-3 (Ground),
Sector-1, R.K. Puram, New Delhi-110066

Sub: Application for grant of NOC to abstract 1.31m³/day quantity of groundwater by dewatering due to intersection of water table at Maton Rock Phosphate Mine of M/s Hindustan Zinc Limited near village Maton Tehsil Girwa Distt Udaipur situated in Girwa block

Ref: 1. Our applications dt, 26.03.2010 & subsequent correspondence dt 17.08.2010 & 19.01.2013
2. Environmental Clearance, dt. 17.03.2010, granted by MoEF for 180000 TPA production capacity

Sir,

Maton Rockphosphate Mine of Hindustan Zinc Ltd is being operated for last more than 40 years. After issuance of EIA Notification, 2006, ore production capacity of the mine continued to remain at 60000 TPA, hence grant of Environmental Clearance was not required till 16.03.2010. However for further renewal of mining lease, the MoEF granted us Environmental Clearance for enhanced capacity of 1,80,000 TPA.

Due to proposed intersection of ground water table, the estimated quantity of dewatering is 1.31m³/day. HZL submitted the application for grant of permission to abstract groundwater by dewatering vide letter dt 26.03.2010 and thereafter incorporated revisions on dt 17.08.10 & 19.01.13. As per CGWA Guidelines, rainwater harvesting/recharge schemes to the tune of 2.62m³/day (200% of the abstracted quantity) was required to be implemented. In the meantime CGWA revised its guidelines on 15.11.2012 and prescribed the new proforma of application. After the incorporation of replies to CGWA queries, fresh application for grant of permission for 1.31m³/day or 480m³/year groundwater abstraction by dewatering is submitted herewith.

To optimise the groundwater recharge quantum, we engaged M/s Water Solutions, New Delhi to conduct study for undertaking the recharge measures for the runoff generated

Annexure 4

ANNEXURE 2

HINDUSTAN ZINC LIMITED
Maron Rock Phosphate Mine
Tehsil- Girwa, Distt. Udaipur- 313004 (Raj)
Phone - 0294-2342093

January 10, 2011

To:

Executive Engineer
Infragon Department
Udaipur (Raj)

Subject: NOC for construction of five Anicut in respect of comply of EC condition.
M.L.F | Ref. F No 1-11015/169/2009-1A.11 (M) Dated 17.03.2010

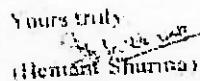
Sir,

In order to comply with the Specific condition no. XII of the above reference (copy encl.), we have conducted study of "Rainwater harvesting program for augmentation of ground water storage in buffer zone of Maron Mine" from Hydro-Geosurvey Consultant, Jodhpur. Wherein they have proposed to construct 5 Anicut in the buffer zone (location maps are encl) i.e.

- Anicut No. 1 near village Kalarwas
- Anicut No.2 near village Pareta
- Anicut No. 3 near village Bichhri
- Anicut No.4 near village Kanpur
- Anicut No.5 near village Durnda

It is requested to kindly accord the NOC for the same so that we can start construction work at the earliest.

Thanking you

Yours truly

(Hemant Sharma)

Mine Manager



vedanta

AT-1158-5



Ref. HZL-Malon-RSPCB/2015-16/65

Date: 18.09.2015

To,

The S-E Mines,
Rajasthan State Pollution Control Board,
4, Institutional Area,
Jhalana Doongri, Jaipur (Raj.) - 302004.

Sub : Grant of Consent to Operate under Section 21(4) of Air (Prevention & Control of Pollution) Act, 1981 and under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 for our Major Schedule Mineral Mine at near Village - Maton, Tehsil - Girwa, District - Udaipur (M.L. No.- 06/89-R-14/09).

Ref.: CTO vide no. F(Mines)/Udaipur(Girwa)/1828(1)/2015-2016/2263-2267, dtd 08.09.2015.

Sir,

With reference to point no. 10 of above referred CTO dtd. 08.09.2015, we hereby submit that based on the hydrogeological study conducted by Hydro-Geosurvey Consultants Private Ltd., Jodhpur and the same mentioned in EIA, it was clearly mentioned that the surface drainage of the lease area does not connect to the Ahar River and hence no effluents or rainwater runoff from the operations shall impact the Ahar river. Also the hillock situated towards north, outside mine lease, ensures that no surface drainage can reach to Ahar river.

Further, Maton Mines operates on Zero discharge. Site has pollution control measures like wet drilling and water sprinkling on haul road. Extensive plantation also controls dust from passing through it and reaching to Ahar river.

Also, to control pollution in Ahar river, HZL entered into a green bridge project of Jheel Sanrakshan Samiti (JSS) Udaipur & Udaipur Chamber of Commerce and Industry (UCCI) and contributed Rs. 10 Lakh to the local administration for pollution mitigation in Ahar River. Copy of acknowledgement receipt of the same is enclosed herewith as Annexure - 1.

Further, HZL has entered into a tripartite agreement with Municipal Council Udaipur and Urban Improvement Trust Udaipur for laying of Sewage Trunk Line from Udaipur city to STP to divert sewage of city from entering into Ahar River and thereby avoiding pollution from entering into it. This 20 MLD STP is also set up by HZL at cost of Rs. 63 Crore at Manwa Kheda, Udaipur. Furthermore, 15% of treated water of above referred STP is released in Ahar River during dry season every year to maintain the water table in the area for the potential users or farmers and to conserve aquatic life of Ahar river.

Hindustan Zinc Limited

Maton Rock Phosphate Mines,
P.O - Maton, Th. - Girwa, Udaipur (Rajasthan) - 313003
Tel. (+91-294) 2342093, Fax . +91-294-2342092
Registered Office - Yashad Bhawan, Udaipur (Rajasthan) - 313004
www.hzlindia.com
CIN - L27204RJ1966PLC001208



HINDUSTAN ZINC LIMITED
Maton Rock Phosphate Mine
Tehsil - Girwa, Distt. Udaipur (Raj.) - 313003
Phone : - 0294-2342093

Ref: HZL/Maton/CGWA/Industry/2014-15/43

Dt 14.07.2014

To,

The Member Secretary,
Central Ground Water Authority,
West Block-II, Wing-3 (Ground),
Sector-1, R.K. Puram, New Delhi-110066

Sub: Application for grant of NOC to abstract 20m³/day quantity of groundwater for industrial use at Maton Rock Phosphate Mine of M/s Hindustan Zinc Limited near village Maton Tehsil Girwa Distt Udaipur situated in Girwa block

- Ref: 1. Our application dt 01.01.2010 & subsequent correspondences dt 11.02.2010, 17.08.2010 & 19.01.2013
2. Environmental Clearance, dt 17.03.2010, granted by MoEF for 180000 TPA production capacity

Sir,

Maton Rockphosphate Mine of Hindustan Zinc Ltd is being operated for last more than 40 years. After issuance of EIA Notification, 2006, ore production capacity of the mine continued to remain at 60000 TPA, hence grant of Environmental Clearance was not required till 16.03.2010. However for further renewal of mining lease, the MoEF granted us Environmental Clearance for enhanced capacity of 1,80,000 TPA.

Operation of mine at enhanced capacity required 200m³/day groundwater for which HZL submitted application vide letter dt 01.01.2010 thereafter incorporated revisions on dt 11.02.10, 17.08.10 & 19.01.13. In the meantime CGWA revised its guidelines on 15.11.2012 and prescribed the new proforma of applications.

To reduce the uses of surface/groundwater for Industrial purposes, HZL has entered into a tripartite agreement with UMC, Udaipur and UIT, Udaipur on 09.05.2012 for setting up of 20 MLD Sewage Treatment Plant (STP) at Udaipur with an investment of Rs 159 Cr. Now HZL has commissioned the plant and made arrangement of pumping and transportation to use the treated water in its units. Looking to the availability, it has been decided to use, 180m³/day of treated water for industrial activities and 20 m³/day of groundwater for domestic purposes. Accordingly a fresh application for grant of permission for 20 m³/day or 7300m³/year groundwater abstraction is submitted herewith.

Annex-7



Fig : Wet Drilling



Report No. 20220405001

Date: - 29.04.2022

1. Name of Customer

TEST REPORT

: HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

04.04.2022/09:20AM to 05.04.2022/09:10AM

Air Sample

Sealed/OK

05.04.2022

05.04.2022 to 14.04.2022

Kharwaria Village

IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

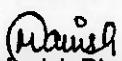
S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1430.4	Minutes
2.	Average Flow rate for PM10	1.180	M ³ / Min
3.	Ambient Temperature	34	°C
4.	Relative Humidity	22	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	58.12	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019	30.43	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	11.38	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	14.29	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by


(Marish Bhagora)
Asst. Chemist

Authorized Signatory


(Dr. S. K. Yadav)
Chief Manager (Environment)
Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

Note

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Page 1 of 1
End of Report



TC-5941

Our Commitment.. Your Trust



Report No. 20220405001

Date: - 29.04.2022

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA PO No. 2016.1201/ 5100019025 Date 13.01.2016
2. Purchase order Number	:	Amendment Dated: - 31.12.2020 04.04.2022/09:20AM to 05.04.2022/09:10AM
3. Date & Time of Monitoring	:	Air Sample
4. Sample Identification	:	Sealed/Ok
5. Condition of Sample	:	05.04.2022
6. Sample received on	:	05.04.2022 to 14.04.2022
7. Period of Analysis	:	Kharwaria Village
8. Name of Location	:	Instrument Manual
9. Method of Sampling	:	

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	34	°C
2.	Relative Humidity	22	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
1.	CO	mg/m ³	By CO meter	0.53	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	3.34	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.330	-

Tested by

Authorized Signatory

(Manish Bhagora)
Asst. Chemist

(Dr. S. K. Yadav)
Chief Manager (Environment)
Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report



OHSA6
Certificate No.
32024-A111

Report No. 20220406001

Date: - 29.04.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

05.04.2022/10:00AM to 06.04.2022/09:50AM

Air Sample

Sealed/Ok

06.04.2022

06.04.2022 to 14.04.2022

Maton Village

IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample received on

7. Period of Analysis

8. Name of Location

9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1428.2	Minutes
2.	Average Flow rate for PM10	1.170	M ³ / Min
3.	Ambient Temperature	36.2	°C
4.	Relative Humidity	19	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	61.13	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019	34.70	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	12.53	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	13.41	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit
Tested by


(Marish Bhagora)
Asst. Chemist

Authorized Signatory

(Dr. S. K. Yadav)
Chief Manager (Environment)
Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Report No. 20220406001

Date: - 29.04.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
 PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

05.04.2022/10:00AM to 06.04.2022/09:50AM

Air Sample

Sealed/Ok

06.04.2022

06.04.2022 to 14.04.2022

Maton Village

Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample received on

7. Period of Analysis

8. Name of Location

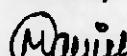
9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	36.2	°C
2.	Relative Humidity	19	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
1.	CO	mg/m ³	By CO meter	0.61	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	3.14	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.385	-

Tested by


 (Manish Bhagora)
 Asst. Chemist

Authorized Signatory


 (Dr. S. K. Yadav)
 Chief Manager (Environment)
 Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

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OHSAS
Certificate No.
32024-A111

Report No. 20220407001

Date: - 29.04.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

06.04.2022/10:50AM to 07.04.2022/10:45AM

Air Sample

Sealed/Ok

07.04.2022

07.04.2022 to 14.04.2022

Lakadwas Village

IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample received on

7. Period of Analysis

8. Name of Location

9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1435	Minutes
2.	Average Flow rate for PM10	1.160	M ³ / Min
3.	Ambient Temperature	33.6	°C
4.	Relative Humidity	25	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	70.44	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019	40.77	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	14.19	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	17.02	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by


(Manish Bhagora)
Asst. Chemist

Authorized Signatory

(Dr. S. K. Yadav)
Chief Manager (Environment)
Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report



Report No. 20220407001

Date: - 29.04.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

06.04.2022/10:50AM to 07.04.2022/10:45AM

Air Sample

Sealed/Ok

07.04.2022

07.04.2022 to 14.04.2022

Lakadwas Village

Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample received on

7. Period of Analysis

6. Name of Location

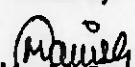
7. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	33.6	°C
2.	Relative Humidity	25	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
1.	CO	mg/m ³	By CO meter	0.68	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	4.38	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.418	-

Tested by


 (Manish Bhagora)
 Asst. Chemist

Authorized Signatory

(Dr. S. K. Yadav)
 Chief Manager (Environment)
 Environmental & Chemical Laboratory
Wolkem India Limited
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Page 1 of 1
End of Report

Report No. 20220408001

Date: - 29.04.2022

1. Name of Customer

: HINDUSTAN ZINC LIMITED
 Rockphosphate Maton Mine
 P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
 PO No. 2016.1201/ 5100019025 Date 13.01.2016
 Amendment Dated: - 31.12.2020
 07.04.2022/11:30AM to 08.04.2022/11:20AM
 Air Sample
 Sealed/Ok
 08.04.2022
 08.04.2022 to 15.04.2022
 Umarda Village
 IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

2. Purchase order Number

- 3. Date & Time of Monitoring**
- 4. Sample Identification**
- 5. Condition of Sample**
- 6. Sample received on**
- 7. Period of Analysis**
- 8. Name of Location**
- 9. Method of Sampling**

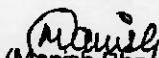
S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1430.5	Minutes
2.	Average Flow rate for PM10	1.185	M ³ / Min
3.	Ambient Temperature	32	°C
4.	Relative Humidity	20	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	75.79	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 Issue date 01.05.2019	42.99	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	16.34	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	18.00	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by


 (Manish Bhagora)
 Asst. Chemist

Authorized Signatory

(Dr. S. K. Yadav)
 Chief Manager (Environment)
 Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
 End of Report



Report No. 20220408001

Date: - 29.04.2022

1. Name of Customer

TEST REPORT

- 2. Purchase order Number**
- 3. Date & Time of Monitoring**
- 4. Sample Identification**
- 5. Condition of Sample**
- 6. Sample received on**
- 7. Period of Analysis**
- 7. Name of Location**
- 7. Method of Sampling**

:

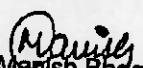
HINDUSTAN ZINC LIMITED
 Rockphosphate Maton Mine
 P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
 PO No. 2016.1201/ 5100019025 Date 13.01.2016
 Amendment Dated: - 31.12.2020
 07.04.2022/11:30AM to 08.04.2022/11:20AM
 Air Sample
 Sealed/Ok
 08.04.2022
 08.04.2022 to 15.04.2022
 Umarda Village
 Instrument Manual

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	32	°C
2.	Relative Humidity	20	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
1.	CO	mg/m ³	By CO meter	0.76	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	4.81	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.405	-

Tested by


 (Marish Bhagora)
 Asst. Chemist

Authorized Signatory


 (Dr. S. K. Yadav)
 Chief Manager (Environment)
 Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
 End of Report



Report No. 20220411001

Date: - 29.04.2022

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA PO No. 2016.1201/ 5100019025 Date 13.01.2016
2. Purchase order Number	:	Amendment Dated: - 31.12.2020
3. Date & Time of Monitoring	:	10.04.2022/12:20PM to 11.04.2022/12:20PM
4. Sample Identification	:	Air Sample
5. Condition of Sample	:	Sealed/Ok
6. Sample received on	:	11.04.2022
7. Period of Analysis	:	11.04.2022 to 18.04.2022
8. Name of Location	:	Mine Lease Area
9. Method of Sampling	:	IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

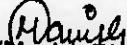
S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1426.4	Minutes
2.	Average Flow rate for PM10	1.190	M ³ / Min
3.	Ambient Temperature	30	°C
4.	Relative Humidity	21	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	53.09	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019	28.88	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	10.68	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	12.27	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL-Below Detection Limit

Tested by


(Manish Bhagora)
Asst. Chemist

Authorized Signatory

(Dr. S. K. Yadav)
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Page 1 of 1
End of Report





Report No. 20220411001

Date: - 29.04.2022

1. Name of Customer

TEST REPORT

- 2. Purchase order Number**
- 3. Date & Time of Monitoring**
- 4. Sample Identification**
- 5. Condition of Sample**
- 6. Sample received on**
- 7. Period of Analysis**
- 8. Name of Location**
- 9. Method of Sampling**

- :
- HINDUSTAN ZINC LIMITED
 Rockphosphate Maton Mine
 P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
 PO No. 2016.1201/ 5100019025 Date 13.01.2016
 Amendment Dated: - 31.12.2020
 10.04.2022/12:20PM to 11.04.2022/12:20PM
 Air Sample
 Sealed/Ok
 11.04.2022
 11.04.2022 to 18.04.2022
 Mine Lease Area
 Instrument Manual

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	30	°C
2.	Relative Humidity	21	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
1.	CO	mg/m ³	By CO meter	0.59	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	3.15	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.303	-

Tested by

Manish
 (Manish Bhagora)
 Asst. Chemist

Authorized Signatory

(Dr. S. K. Yadav)
 Chief Manager (Environment)

Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
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JAS-ANZ
 Certificate No.
 32024-A111



Report No. 20220503005/A

1. Name of Customer

2. Purchase order Number

3. Date & Time of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample received on

7. Period of Analysis

8. Name of Location

9. Method of Sampling

Report Issue Date: - 02.06.2022

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

02.05.2022/09:00AM to 03.05.2022/08:55AM

Air Sample

Sealed/Ok

03.05.2022

03.05.2022 to 11.05.2022

Kharwaria Village

IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1436	Minutes
2.	Average Flow rate for PM10	1.205	M³/ Min
3.	Ambient Temperature	32	°C
4.	Relative Humidity	28	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	60.97	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 Issue date 01.05.2019	33.43	80
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	11.72	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	13.79	80
5.	Lead	µg/m ³	IS: 5182(Par22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by

Leena
(Leena sharma)
Asst. Chemist

Authorized Signatory

Manish
(Manish Bhagora)
Asst. Chemist
Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

Note

- Complaint Register is available in lab / Email ID lab.office@wolkem.com
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Page 1 of 1
End of Report



Report No. 20220503005/B

Report Issue Date: - 02.06.2022

1. Name of Customer

TEST REPORT

: HINDUSTAN ZINC LIMITED
Rockphosphate Maton Mine
P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
PO No. 2016.1201/ 5100019025 Date 13.01.2016
Amendment Dated: - 31.12.2020
02.05.2022/09:00AM to 03.05.2022/08:55AM
Air Sample
Sealed/Ok
03.05.2022
03.05.2022 to 11.05.2022
Kharwaria Village
Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample received on
7. Period of Analysis
8. Name of Location
9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	32	°C
2.	Relative Humidity	28	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (GCPB Norms) New. Delhi dt. 18 th Nov. 2009
1.	Chemical Atmospheric Pollution- Ambient Air				
2.	CO	mg/m ³	By CO meter	0.56	04
3.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/26	3.12	-
4.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.382	-

Tested by

Leena sharma
(Leena sharma)
Asst. Chemist

Authorized Signatory

Menish
(Menish Bhagora)
Asst. Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

Note

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Page 1 of 1
End of Report



CHAS
Contract No.:
32026-A111

Report No. 20220504001/A

Report Issue Date: - 02.06.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

03.05.2022/09:40AM to 04.05.2022/09:35AM

Air Sample

Sealed/Ok

04.05.2022

04.05.2022 to 11.05.2022

Maton Village

IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample received on

7. Period of Analysis

8. Name of Location

9. Method of Sampling

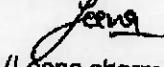
S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1434	Minutes
2.	Average Flow rate for PM10	1.150	M ³ / Min
3.	Ambient Temperature	33	°C
4.	Relative Humidity	32	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2008 RA 2017	76.04	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019	43.93	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	10.50	80
4.	NO ₂	µg/m ³	IS:5182 (Part 8)2008 Reaff 2017	13.24	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Roaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by


 (Leena Sharma)
 Asst. Chemist

Authorized Signatory


 (Manish Bhagora)
 Asst. Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
 End of Report



Report No. 20220504001/B

Report Issue Date: - 02.06.2022

1. Name of Customer	TEST REPORT
2. Purchase order Number	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA PO No. 2016.1201/ 5100019025 Date 13.01.2016
3. Date & Time of Monitoring	Amendment Dated: - 31.12.2020
4. Sample Identification	03.05.2022/09:40AM to 04.05.2022/09:35AM
5. Condition of Sample	Air Sample
6. Sample received on	Sealed/Ok
7. Period of Analysis	04.05.2022
8. Name of Location	04.05.2022 to 11.05.2022
9. Method of Sampling	Maton Village Instrument Manual

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	33	°C
2.	Relative Humidity	32	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.70	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	3.34	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.364	-

Tested by

Leena Sharma
 (Leena Sharma)
 Asst. Chemist

Authorized Signatory

Manish Bhagora
 (Manish Bhagora)
 Asst. Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report



DHSAS
 Certificate No.
 2224-A111

Report No. 20220505001/A

Report Issue Date: - 02.06.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

04.05.2022/10:20AM to 05.05.2022/10:05AM

Air Sample

Sealed/Ok

05.05.2022

05.05.2022 to 11.05.2022

Lakadwas Village

IS: 5182(Part 2, Part 6; Part23,Part22) & Instrument Manual

2. Purchase order Number
3. Date & Time of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample received on
7. Period of Analysis
8. Name of Location
9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1433	Minutes
2.	Average Flow rate for PM10	1.25	M³/ Min
3.	Ambient Temperature	33.5	°C
4.	Relative Humidity	30	%

Results Ambient Air Quality

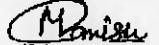
S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	60.57	100
2.	PM 2.5	µg/m ³	WIL/SOP No. 10/25 Issue date 01.05.2019	33.50	80
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	12.05	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2008 Reaff 2017	14.40	80
5.	Lead	µg/m ³	IS: 5182(Par22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL-Below Detection Limit

Tested by


 (Leena sharma)
 Asst. Chemist

Authorized Signatory


 (Manish Bhagora)
 Asst. Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
 End of Report



Report No. 20220505001/B

Report Issue Date: - 02.06.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

04.05.2022/10:20AM to 05.05.2022/10:05AM

Air Sample

Sealed/Ok

05.05.2022

05.05.2022 to 11.05.2022

Lakadwas Village

Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample received on

7. Period of Analysis

8. Name of Location

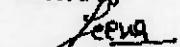
9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	33.5	°C
2.	Relative Humidity	30	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.53	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	4.17	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.383	-

Tested by


 (Leena Sharma)
 Asst. Chemist

Authorized Signatory


 (Manish Bhagora)
 Asst. Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report

Report No. 20220506001/A

Report Issue Date: - 02.06.2022

1. Name of Customer

TEST REPORT

2. Purchase order Number
3. Date & Time of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample received on
7. Period of Analysis
8. Name of Location
9. Method of Sampling

HINDUSTAN ZINC LIMITED
 Rockphosphate Maton Mine
 P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
 PO No. 2016.1201/ 5100019025 Date 13.01.2016
 Amendment Dated: - 31.12.2020
 05.05.2022/10:30AM to 06.05.2022/10:00AM
 Air Sample
 Sealed/Ok
 06.05.2022
 06.05.2022 to 11.05.2022
 Umarda Village
 IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1429	Minutes
2.	Average Flow rate for PM10	1.23	M ³ / Min
3.	Ambient Temperature	35	°C
4.	Relative Humidity	32	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2008
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	71.34	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019	35.27	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	12.39	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	15.59	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by

(Leena sharma)
 Asst. Chemist

Authorized Signatory

(Manish Bhagora)
 Asst. Chemist

Note

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Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, Mewar Industrial Area, UDAIPUR (Rajasthan)

Page 1 of 1
 End of Report



Report No. 20220506001/B

Report Issue Date: - 02.06.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED
Rockphosphate Maton Mine
P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
PO No. 2016.1201/ 5100019025 Date 13.01.2016
Amendment Dated: - 31.12.2020
05.05.2022/10:30AM to 06.05.2022/10:00AM
Air Sample
Sealed/Ok
06.05.2022
06.05.2022 to 11.05.2022
Umarda Village
Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample received on
7. Period of Analysis
8. Name of Location
9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	35	°C
2.	Relative Humidity	32	%

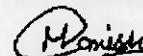
Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.48	04
2.	SO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	4.60	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.322	-

Tested by

(Leena sharma)
Asst. Chemist

Authorized Signatory


(Manish Bhagora)
Asst. Chemist
Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report



JAS-ANZ
Certificate No.
32024-A111

Report No. 20220509001/A

Report Issue Date: - 02.06.2022

1. Name of Customer

TEST REPORT

2. Purchase order Number
3. Date & Time of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample received on
7. Period of Analysis
8. Name of Location
9. Method of Sampling

: HINDUSTAN ZINC LIMITED
 Rockphosphate Maton Mine
 P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
 PO No. 2016.1201/ 5100019025 Date 13.01.2016
 Amendment Dated: - 31.12.2020
 06.05.2022/10:50AM to 07.05.2022/10:35AM.
 Air Sample
 Sealed/Ok
 09.05.2022
 09.05.2022 to 14.05.2022
 Mine Lease Area
 IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1431	Minutes
2.	Average Flow rate for PM10	1.155	M ³ / Min
3.	Ambient Temperature	34	°C
4.	Relative Humidity	31	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2008
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	60.62	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019	31.87	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	10.21	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	12.11	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by


 (Leena Sharma)
 Asst. Chemist

Authorized Signatory


 (Manish Bhagora)
 Asst. Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.L.A., UDAIPUR (Rajasthan)

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Page 1 of 1
 End of Report





INDIA LIMITED

Laboratory : E- 102, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan (INDIA)

Phone : 91 294 2494600 to 02 E-mail : info.wcs@wolkem.com



Report No. 20220509001/B

Report Issue Date: - 02.06.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

06.05.2022/10:50AM to 07.05.2022/10:35AM

Air Sample

Sealed/Ok

09.05.2022

09.05.2022 to 14.05.2022

Mine Lease Area

Instrument Manual

2. Purchase order Number
3. Date & Time of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample received on
7. Period of Analysis
8. Name of Location
9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	34	°C
2.	Relative Humidity	31	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQ8 (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.60	04
2.	SiO ₂	µg/m ³	SOP NO.WL/AIR/TP/ 23/25	3.14	-
3.	PO ₄	µg/m ³	SOP NO.WL/AIR/TP/ 24/25	0.363	-

Tested by

(Leena sharma)
Asst. Chemist

Authorized Signatory

(Manish Bhagora)
Asst. Chemist

Environmental & Chemical Laboratory

Wolkem India Limited

E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of ReportRegistered & Corporate Office :
"Wolkem House", E-101, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan-India
Phone : +91 294 2494600 - 02 E-mail : info@wolkem.com
CIN: U29299RJ1971PLC001379

GHSAS

Certificate No
22224-A111

Our Commitment.. Your Trust

Report No. 20220607001/A

Report Issue Date: - 29.06.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED
 Rockphosphate Maton Mine
 P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
 PO No. 2016.1201/ 5100019025 Date 13.01.2016
 Amendment Dated: - 31.12.2020
 06.06.2022/09:30AM to 07.06.2022/09:20AM
 Air Sample
 Sealed/Ok
 07.06.2022
 07.06.2022 to 16.06.2022
 Kharwaria Village
 IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring
 4. Sample Identification
 5. Condition of Sample
 6. Sample received on
 7. Period of Analysis
 8. Name of Location
 9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1428.4	Minutes
2.	Average Flow rate for PM10	1.185	M ³ Min
3.	Ambient Temperature	30	°C
4.	Relative Humidity	37	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	56.80	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019	28.56	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	10.54	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	12.13	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by


 (Leena Sharma)
 Asst. Chemist

Authorized Signatory


 (Manish Bhagora)
 Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

Note

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 End of Report





Report No. 20220607001/B

Report Issue Date: - 29.06.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

06.06.2022/09:30AM to 07.06.2022/09:20AM

Air Sample

Sealed/Ok

07.06.2022

07.06.2022 to 16.06.2022

Kharwaria Village

Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample received on

7. Period of Analysis

8. Name of Location

9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	30	°C
2.	Relative Humidity	37	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
1.	Chemical Atmospheric Pollution- Ambient Air				
2.	CO	mg/m ³	By CO meter	0.60	04
3.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	3.77	-
4.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.365	-

Tested by

Leena Sharma
(Leena Sharma)
Asst. Chemist

Authorized Signatory

Manish
(Manish Bhagora)
Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report



OHSAS
Certificate No.
32024-A111

Report No. 20220608001/A

Report Issue Date: - 29.06.2022

1. Name of Customer

TEST REPORT

: HINDUSTAN ZINC LIMITED
 Rockphosphate Maton Mine
 P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
 PO No. 2016.1201/ 5100019025 Date 13.01.2016
 Amendment Dated: - 31.12.2020
 07.06.2022/09:50AM to 08.06.2022/09:35AM
 Air Sample
 Sealed/Ok
 08.06.2022
 08.06.2022 to 16.06.2022
 Maton Village
 IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring
 4. Sample Identification
 5. Condition of Sample
 6. Sample received on
 7. Period of Analysis
 8. Name of Location
 9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1422.1	Minutes
2.	Average Flow rate for PM10	1.175	M ³ / Min
3.	Ambient Temperature	32	°C
4.	Relative Humidity	34	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	65.04	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019	35.86	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	11.21	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	14.51	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by

Leena
 (Leena sharma)
 Asst. Chemist

Authorized Signatory

Manish
 (Manish Bhagora)
 Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
 End of Report





Report No. 20220608001/B

Report Issue Date: - 29.06.2022

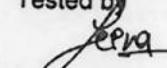
1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA PO No. 2016.1201/ 5100019025 Date 13.01.2016 Amendment Dated: - 31.12.2020
2. Purchase order Number	:	07.06.2022/09:50AM to 08.06.2022/09:35AM
3. Date & Time of Monitoring	:	Air Sample
4. Sample Identification	:	Sealed/Ok
5. Condition of Sample	:	08.06.2022
6. Sample received on	:	08.06.2022 to 16.06.2022
7. Period of Analysis	:	Maton Village
8. Name of Location	:	Instrument Manual
9. Method of Sampling	:	

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	32	°C
2.	Relative Humidity	34	%

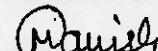
Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQ8 (CPCB Norms) New Delhi dt. 15 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.59	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	3.15	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.313	-

Tested by


 (Leena sharma)
 Asst. Chemist

Authorized Signatory


 (Manish Bhagora)
 Chemist

 Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1

 End of Report

Registered & Corporate Office :

 "Wolkem House", E-101, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan-India
 Phone : +91 294 2494600 - 02 E-mail : info@wolkem.com
 CIN- U29299RJ1971PLC001379

 Certificate No.
 32024-A111

Our Commitment.. Your Trust

Report No. 20220609001/A

Report Issue Date: - 29.06.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

08.06.2022/10:00AM to 09.06.2022/09:50AM

Air Sample

Sealed/Ok

09.06.2022

09.06.2022 to 16.06.2022

Lakadwas Village

IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample received on

7. Period of Analysis

8. Name of Location

9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1430.5	Minutes
2.	Average Flow rate for PM10	1.20	M ³ / Min
3.	Ambient Temperature	32	°C
4.	Relative Humidity	39	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	67.13	100
2.	PM 2.5	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019	38.17	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	13.31	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	15.58	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by

Leena Sharma
 Asst. Chemist

Authorized Signatory

Manish Bhagora
 Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report



Report No. 20220609001/B

Report Issue Date: - 29.06.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

08.06.2022/10:00AM to 09.06.2022/09:50AM

Air Sample

Sealed/Ok

09.06.2022

09.06.2022 to 16.06.2022

Lakadwas Village

Instrument Manual

2. Purchase order Number
3. Date & Time of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample received on
7. Period of Analysis
8. Name of Location
9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	32	°C
2.	Relative Humidity	39	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.68	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	4.81	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.365	-

Tested by

Leena Sharma
 (Leena Sharma)
 Asst. Chemist

Authorized Signatory

Manish Bhagora
 (Manish Bhagora)
 Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1

End of Report



OHSAS
 Certificate No.
 32024-A111

Report No. 20220610001/A

Report Issue Date: - 29.06.2022

1. Name of Customer

: HINDUSTAN ZINC LIMITED
 Rockphosphate Maton Mine
 P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
 PO No. 2016.1201/ 5100019025 Date 13.01.2016
 Amendment Dated: - 31.12.2020
 09.06.2022/10:40AM to 10.06.2022/10:32AM
 Air Sample
 Sealed/Ok
 10.06.2022
 10.06.2022 to 16.06.2022
 Umarda Village
 IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

2. Purchase order Number

- 3. Date & Time of Monitoring**
4. Sample Identification
5. Condition of Sample
6. Sample received on
7. Period of Analysis
8. Name of Location
9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1432.6	Minutes
2.	Average Flow rate for PM10	1.185	M ³ / Min
3.	Ambient Temperature	33	°C
4.	Relative Humidity	41	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 16 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	74.10	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 Issue date 01.05.2019	41.46	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	14.22	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	16.71	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by,

[Signature]
 (Leena sharma)
 Asst. Chemist

Authorized Signatory

[Signature]
 (Manish Bhagora)
 Chemist
 Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
 End of Report



Report No. 20220610001/B

Report Issue Date: - 29.06.2022

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA PO No. 2016.1201/ 5100019025 Date 13.01.2016
2. Purchase order Number	:	Amendment Dated: - 31.12.2020 09.06.2022/10:40AM to 10.06.2022/10:32AM
3. Date & Time of Monitoring	:	Air Sample
4. Sample Identification	:	Sealed/Ok
5. Condition of Sample	:	10.06.2022
6. Sample received on	:	10.06.2022 to 16.06.2022
7. Period of Analysis	:	Umarda Village
6. Name of Location	:	Instrument Manual
7. Method of Sampling	:	

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	33	°C
2.	Relative Humidity	41	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.71	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	5.22	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.379	-

Tested by

Leena
(Leena Sharma)
Asst. Chemist

Authorized Signatory

Manish
(Manish Bhagora)
Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report



Certificate No.
32024-A111



Report No. 20220613001/A

Report Issue Date: - 29.06.2022

TEST REPORT	
1. Name of Customer	: HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number	: PO No. 2016.1201/ 5100019025 Date 13.01.2016
3. Date & Time of Monitoring	: Amendment Dated: - 31.12.2020
4. Sample Identification	: 10.06.2022/11:10AM to 11.06.2022/10:56AM
5. Condition of Sample	: Air Sample
6. Sample received on	: Sealed/Ok
7. Period of Analysis	: 13.06.2022
8. Name of Location	: 13.06.2022 to 16.06.2022
9. Method of Sampling	: Mine Lease Area IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1426	Minutes
2.	Average Flow rate for PM10	1.195	M³/ Min
3.	Ambient Temperature	28	°C
4.	Relative Humidity	36	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	54.28	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 Issue date 01.05.2019	28.61	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	9.94	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	12.73	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by

 (Leena Sharma)
 Asst. Chemist

Authorized Signatory

 (Manish Bhagora)
 Chemist

 Environmental & Chemical Laboratory
Wolkem India Limited

F-102, M.I.A., UDAIPUR (Rajasthan)

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5. Any discrepancy in test results should be reported within 15 days.

 Page 1 of 1

 End of Report _____




Report No. 20220613001/B

Report Issue Date: - 29.06.2022

TEST REPORT

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number	:	PO No. 2016.1201/ 5100019025 Date 13.01.2016
3. Date & Time of Monitoring	:	Amendment Dated: - 31.12.2020
4. Sample Identification	:	10.06.2022/11:10AM to 11.06.2022/10:56AM
5. Condition of Sample	:	Air Sample
6. Sample received on	:	Sealed/Ok
7. Period of Analysis	:	13.06.2022
8. Name of Location	:	13.06.2022 to 16.06.2022
9. Method of Sampling	:	Mine Lease Area
		Instrument Manual

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	28	°C
2.	Relative Humidity	36	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.54	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	3.78	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.312	-

Tested by

(Leepa Sharma)
Asst. Chemist

Authorized Signatory

(Manish Bhagora)
Chemist

Environmental & Chemical Laboratory
Wolkem India Limited

E-102, M.I.A., UDAIPUR (Rajasthan)

Note

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Page 1 of 1
End of Report



IS-AMZ
Certificate No.
32024-A111



Report No. 20220705001

Report Issue Date: - 29.07.2022

1. Name of Customer
TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.02.2020

04.07.2022/10:30AM to 05.07.2022/10:25AM

2. Purchase order Number

Air Sample

3. Date & Time of Monitoring

Sealed/Ok

4. Sample Identification

05.07.2022

5. Condition of Sample

05.07.2022 to 12.07.2022

6. Sample received on

Kharwaria Village

7. Period of Analysis

IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

8. Name of Location
9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1435.80	Minutes
2.	Average Flow rate for PM10	1.170	M ³ / Min
3.	Ambient Temperature	27	°C
4.	Relative Humidity	58	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	51.47	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 Issue date 01.05.2019	25.91	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	8.83	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	10.09	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by

 (Leena Sharma)
 Asst. Chemist

Authorized Signatory

 (Manish Bhagora)

Chemist

 Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

Note

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Report No. 20220705001

Report Issue Date: - 29.07.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED
Rockphosphate Maton Mine
P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
PO No. 2016.1201/ 5100019025 Date 13.01.2016
Amendment Dated: - 31.02.2020
04.07.2022/10:30AM to 05.07.2022/10:25AM
Air Sample
Sealed/Ok
05.07.2022
05.07.2022 to 12.07.2022
Kharwaria Village
Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample received on

7. Period of Analysis

8. Name of Location

9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	27	°C
2.	Relative Humidity	58	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.52	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	3.75	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.245	-

Tested by

Leena Sharma
(Leena Sharma)
Asst. Chemist

Authorized Signatory

Manish
(Manish Bhagora)
Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

Note

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Page 1 of 1

End of Report

Report No. 20220706004

Report Issue Date: - 29.07.2022

1. Name of Customer

TEST REPORT

: HINDUSTAN ZINC LIMITED
Rockphosphate Maton Mine
P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
PO No. 2016.1201/ 5100019025 Date 13.01.2016
Amendment Dated: - 31.02.2020
05.07.2022/09:30AM to 06.07.2022/09:10AM
Air Sample
Sealed/Ok
06.07.2022
06.07.2022 to 12.07.2022
Maton Village
IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample received on
7. Period of Analysis
8. Name of Location
9. Method of Sampling

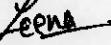
S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1433.0	Minutes
2.	Average Flow rate for PM10	1.190	M ³ / Min
3.	Ambient Temperature	28	°C
4.	Relative Humidity	62	%

Results Ambient Air Quality

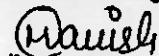
S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	55.91	100
2.	PM 2.5	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019	28.89	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	9.58	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	11.51	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by


(Leena Sharma)
Asst. Chemist

Authorized Signatory


(Manish Bhagora)

Chemist
Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report



Report No. 20220706004

Report Issue Date: - 29.07.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.02.2020

05.07.2022/09:30AM to 06.07.2022/09:10AM

Air Sample

Sealed/Ok

06.07.2022

06.07.2022 to 12.07.2022

Maton Village

Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample received on

7. Period of Analysis

8. Name of Location

9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	28	°C
2.	Relative Humidity	62	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.54	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	3.13	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.267	-

Tested by

Keena Sharma
Keena Sharma
Asst. Chemist

Authorized Signatory

Manish
(Manish Bhagora)
Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report

Report No. 20220707001

Report Issue Date: - 29.07.2022

1. Name of Customer

TEST REPORT

: HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.02.2020

06.07.2022/10:00AM to 07.07.2022/09:35AM

Air Sample

Sealed/Ok

07.07.2022

07.07.2022 to 12.07.2022

Lakadwas Village

IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample received on

7. Period of Analysis

8. Name of Location

9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1425.40	Minutes
2.	Average Flow rate for PM10	1.165	M ³ / Min
3.	Ambient Temperature	28.6	°C
4.	Relative Humidity	65	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	60.97	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019	33.25	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	12.31	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	13.28	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by

Leena Sharma
Asst. Chemist

Authorized Signatory


 (Manish Bhagora)
 Chemist

Environmental & Chemical Laboratory

Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1

End of Report



TC-5941

Our Commitment.. Your Trust

Report No. 20220707001

Report Issue Date: - 29.07.2022

1. Name of Customer

TEST REPORT

2. Purchase order Number

HINDUSTAN ZINC LIMITED
Rockphosphate Maton Mine
P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
PO No. 2016.1201/ 5100019025 Date 13.01.2016
Amendment Dated: - 31.02.2020
06.07.2022/10:00AM to 07.07.2022/09:35AM
Air Sample
Sealed/Ok
07.07.2022
07.07.2022 to 12.07.2022
Lakadwas Village
Instrument Manual

3. Date & Time of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample received on

7. Period of Analysis

8. Name of Location

7. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	28.6	°C
2.	Relative Humidity	65	%

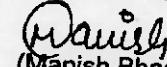
Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.61	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	4.83	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.326	-

Tested By

(Leena Sharma)
Asst. Chemist

Authorized Signatory


Mainish
 (Mainish Bhagora)
 Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report



JAS-ANZ
Certificate No.
01130126322



Report No. 20220708001

Report Issue Date: - 29.07.2022

1. Name of Customer

TEST REPORT

: HINDUSTAN ZINC LIMITED
Rockphosphate Maton Mine
P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
PO No. 2016.1201/ 5100019025 Date 13.01.2016
Amendment Dated: - 31.02.2020
07.07.2022/10:40AM to 08.07.2022/10:20AM
Air Sample
Sealed/Ok
08.07.2022
08.07.2022 to 14.07.2022
Umarda Village
IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample received on
7. Period of Analysis
8. Name of Location
9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1428.50	Minutes
2.	Average Flow rate for PM10	1.165	M ³ / Min
3.	Ambient Temperature	29	°C
4.	Relative Humidity	60	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	63.24	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019	35.70	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	13.02	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	15.39	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by

Leena
(Leena Sharma)
Asst. Chemist

Authorized Signatory

Manish
(Manish Bhagora)
Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1

End of Report



Report No. 20220708001

Report Issue Date: - 29.07.2022

1. Name of Customer

TEST REPORT

: HINDUSTAN ZINC LIMITED
Rockphosphate Maton Mine
P.O. Maton, Distt. Udaipur (Rajasthan), INDIA.
PO No. 2016.1201/ 5100019025 Date 13.01.2016
Amendment Dated: - 31.02.2020
07.07.2022/10:40AM to 08.07.2022/10:20AM
Air Sample
Sealed/Ok
08.07.2022
08.07.2022 to 14.07.2022
Umarda Village
Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample received on
7. Period of Analysis
8. Name of Location
9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	29	°C
2.	Relative Humidity	60	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 16 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.67	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	5.23	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.340	-

Tested by

Leena Sharma
(Leena Sharma)
Asst. Chemist

Authorized Signatory

Manish Bhagora
(Manish Bhagora)
Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

Note

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Page 1 of 1
End of Report



Report No. 20220711001

Report Issue Date: - 29.07.2022

1. Name of Customer

TEST REPORT

: HINDUSTAN ZINC LIMITED
Rockphosphate Maton Mine
P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
PO No. 2016.1201/ 5100019025 Date 13.01.2016
Amendment Dated: - 31.02.2020
08.07.2022/10:15AM to 09.07.2022/10:00AM
Air Sample
Sealed/Ok
11.07.2022
11.07.2022 to 14.07.2022
Mine Lease Area
IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample received on
7. Period of Analysis
8. Name of Location
9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1430.40	Minutes
2.	Average Flow rate for PM10	1.170	M ³ / Min
3.	Ambient Temperature	27	°C
4.	Relative Humidity	56	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	51.91	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019	26.43	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	8.04	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2008 Reaff 2017	9.78	80
5.	Lead	µg/m ³	IS: 5182(Par22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL-Below Detection Limit

Tested by

Leena Sharma
(Leena Sharma)
Asst. Chemist

Authorized Signatory

Manish Bhagora
(Manish Bhagora)
Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report



Report No. 20220711001

Report Issue Date: - 29.07.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED
 Rockphosphate Maton Mine
 P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
 PO No. 2016.1201/ 5100019025 Date 13.01.2016
 Amendment Dated: - 31.02.2020
 08.07.2022/10:15AM to 09.07.2022/10:00AM
 Air Sample
 Sealed/Ok
 11.07.2022
 11.07.2022 to 14.07.2022
 Mine Lease Area
 Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample received on
7. Period of Analysis
8. Name of Location
9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	27	°C
2.	Relative Humidity	56	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.50	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	3.76	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.297	-

Tested by

Leena Sharma
 (Leena Sharma)
 Asst. Chemist

Authorized Signatory

Manish
 (Manish Bhagora)
 Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

Note

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Page 1 of 1
End of Report



Report No. 20220817001/A

Report Issue Date: - 26.08.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED
Rockphosphate Maton Mine
P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
PO No. 2016.1201/ 5100019025 Date 13.01.2016
Amendment Dated: - 31.12.2020
16.08.2022/10:15AM to 17.08.2022/10:00AM
Air Sample
Sealed/Ok
17.08.2022
17.08.2022 to 24.08.2022
Mine Lease Area
IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

2. Purchase order Number
3. Date & Time of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample received on
7. Period of Analysis
8. Name of Location
9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1425	Minutes
2.	Average Flow rate for PM10	1.20	M ³ / Min
3.	Ambient Temperature	27.5	°C
4.	Relative Humidity	35	%
Results Ambient Air Quality			
S. No	Parameters	Unit	Test Method
Chemical Atmospheric Pollution- Ambient Air			
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014
BDL-Below Detection Limit		BDL(<0.05)	1.0

Tested by,

Leena
(Leena Sharma)
Asst.Chemist

Authorized Signatory

Priyanka Yadav
(Priyanka Yadav)

Asst.Chemist
Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

Note

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Page 1 of 1
End of Report



Report No. 20220817001/B

Report Issue Date: - 26.08.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA.

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

16.08.2022/10:15AM to 17.08.2022/10:00AM

Air Sample

Sealed/Ok

17.08.2022

17.08.2022 to 24.08.2022

Mine Lease Area

Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample received on
7. Period of Analysis
8. Name of Location
9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	27.5	°C
2.	Relative Humidity	35	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.56	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	3.36	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.341	-

Tested by

Leena Sharma
 (Leena Sharma)
 Asst.Chemist

Authorized Signatory

Priyanka Yadav
 (Priyanka Yadav)
 Asst.Chemist
 Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

Note

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Page 1 of 1

End of Report



Report No. 20220818001/A

1. Name of Customer

TEST REPORT

Report Issue Date: - 26.08.2022

2. Purchase order Number

HINDUSTAN ZINC LIMITED
 Rockphosphate Maton Mine
 P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
 PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

17.08.2022/10:20AM to 18.08.2022/10:10AM

Air Sample

Sealed/Ok

18.08.2022

18.08.2022 to 24.08.2022

Umarda Village

IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

3. Date & Time of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample received on

7. Period of Analysis

8. Name of Location

9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1436	Minutes
2.	Average Flow rate for PM10	1.245	M ³ / Min
3.	Ambient Temperature	27.8	°C
4.	Relative Humidity	37	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	62.70	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019	32.43	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	9.91	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	14.62	80
5.	Lead	µg/m ³	IS: 5182(Par22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by

Leena
 (Leena Sharma)
 Asst.Chemist

Authorized Signatory

Priyanka Yadav
 (Priyanka Yadav)
 Asst.Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

Note

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Page 1 of 1
 End of Report



Report No. 20220818001/B

Report Issue Date: - 26.08.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

17.08.2022/10:20AM to 18.08.2022/10:10AM

2. Purchase order Number

Air Sample

3. Date & Time of Monitoring

Sealed/Ok

4. Sample Identification

18.08.2022

5. Condition of Sample

18.08.2022 to 24.08.2022

6. Sample received on

Umarda Village

7. Period of Analysis

Instrument Manual

8. Name of Location

9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	27.8	°C
2.	Relative Humidity	37	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.51	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	4.58	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.302	-

Tested by

Leena Sharma
(Leena Sharma)
Asst.Chemist

Authorized Signatory

Priyanka Yadav
(Priyanka Yadav)
Asst.Chemist
Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1

End of Report

Report No. 20220819001/A

Report Issue Date: - 26.08.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

18.08.2022/10:45AM to 19.08.2022/10:35AM

2. Purchase order Number

Air Sample

3. Date & Time of Monitoring

Sealed/Ok

4. Sample Identification

19.08.2022

5. Condition of Sample

19.08.2022 to 24.08.2022

6. Sample received on

Lakadwas Village

7. Period of Analysis

IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

8. Name of Location

9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1433	Minutes
2.	Average Flow rate for PM10	1.210	M ³ / Min
3.	Ambient Temperature	29.1	°C
4.	Relative Humidity	35	%

Results Ambient Air Quality

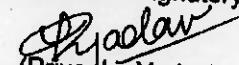
S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	59.52	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 Issue date 01.05.2019	30.83	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	11.12	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	14.57	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by

Leena Sharma
Asst.Chemist

Authorized Signatory



(Priyanka Yadav)
Asst.Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report



Report No. 20220819001/B

Report Issue Date: - 26.08.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

18.08.2022/10:45AM to 19.08.2022/10:35AM

Air Sample

Sealed/Ok

19.08.2022

19.08.2022 to 24.08.2022

Lakadwas Village

Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring

:

4. Sample Identification

:

5. Condition of Sample

:

6. Sample received on

:

7. Period of Analysis

:

8. Name of Location

:

9. Method of Sampling

:

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	29.1	°C
2.	Relative Humidity	35	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.58	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	4.17	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.361	-

Tested by

Leena
(Leena Sharma)
Asst.Chemist

Authorized Signatory

Priyanka Yadav
(Priyanka Yadav)
Asst.Chemist
Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1

End of Report

Report No. 20220820001/A

Report Issue Date: - 26.08.2022

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA PO No. 2016.1201/ 5100019025 Date 13.01.2016
2. Purchase order Number	:	Amendment Dated: - 31.12.2020
3. Date & Time of Monitoring	:	19.08.2022/10:35AM to 20.08.2022/10:30AM
4. Sample Identification	:	Air Sample
5. Condition of Sample	:	Sealed/Ok
6. Sample received on	:	20.08.2022
7. Period of Analysis	:	20.08.2022 to 26.08.2022
8. Name of Location	:	Maton Village
9. Method of Sampling	:	IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1438	Minutes
2.	Average Flow rate for PM10	1.155	M ³ / Min
3.	Ambient Temperature	27.7	°C
4.	Relative Humidity	34	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	57.26	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019	28.23	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	11.82	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	15.56	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by

Leena
(Leena Sharma)
Asst.Chemist

Authorized Signatory

Priyanka Yadav
(Priyanka Yadav)
Asst.Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report



Report No. 20220820001/B

Report Issue Date: - 26.08.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

19.08.2022/10:35AM to 20.08.2022/10:30AM

2. Purchase order Number

Air Sample

3. Date & Time of Monitoring

Sealed/Ok

4. Sample Identification

20.08.2022

5. Condition of Sample

20.08.2022 to 26.08.2022

6. Sample received on

Maton Village

7. Period of Analysis

Instrument Manual

8. Name of Location

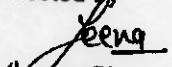
9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	29.7	°C
2.	Relative Humidity	34	%

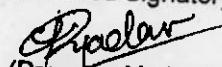
Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.62	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	3.54	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.362	-

Tested by


(Leena Sharma)
Asst.Chemist

Authorized Signatory


(Priyanka Yadav)
Asst.Chemist
Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1

End of Report



OHSAAS
Certificate No.
01130126322

Report No. 20220822001/A

Report Issue Date: - 26.08.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

20.08.2022/10:00AM to 23.07.2022/09:50AM

Air Sample

Sealed/Ok

22.08.2022

22.08.2022 to 26.08.2022

Kharwaria Village

IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample received on

7. Period of Analysis

8. Name of Location

9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1435	Minutes
2.	Average Flow rate for PM10	1.140	M ³ / Min
3.	Ambient Temperature	27.7	°C
4.	Relative Humidity	35	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	56.30	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019	29.95	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	12.18	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	17.27	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by

Leena Sharma
(Leena Sharma)
Asst.Chemist

Authorized Signatory

Priyanka Yadav
(Priyanka Yadav)
Asst.Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1

End of Report



Report No. 20220822001/B

Report Issue Date: - 26.08.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED
Rockphosphate Maton Mine
P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
PO No. 2016.1201/ 5100019025 Date 13.01.2016
Amendment Dated: - 31.12.2020
20.08.2022/10:00AM to 23.07.2022/09:50AM
Air Sample
Sealed/Ok
22.08.2022
22.08.2022 to 26.08.2022
Kharwaria Village
Instrument Manual

2. Purchase order Number

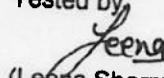
3. Date & Time of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample received on
7. Period of Analysis
8. Name of Location
9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	27.7	°C
2.	Relative Humidity	35	%

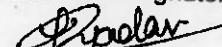
Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.57	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	3.96	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.383	-

Tested by,


(Leena Sharma)
Asst.Chemist

Authorized Signatory


(Priyanka Yadav)
Asst.Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report

Report No. 20220906001/A

Report Issue Date: - 16.09.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED
Rockphosphate Maton Mine
P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
PO No. 2016.1201/ 5100019025 Date 13.01.2016
Amendment Dated: - 31.12.2020
05.09.2022/11:40AM
Air Sample
Sealed/Ok
06.09.2022
06.09.2022 to 15.09.2022
Kharwaria Village
IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample received on
7. Period of Analysis
8. Name of Location
9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1420.15	Minutes
2.	Average Flow rate for PM10	1.140	M ³ / Min
3.	Ambient Temperature	33.6	°C
4.	Relative Humidity	52	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	51.05	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019	26.09	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	9.36	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	11.27	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by

Leena
(Leena Sharma)
Asst.Chemist

Authorized Signatory

Mahish
(Mahish Bhagora)
Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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5. Any discrepancy in test results should be reported within 15 days.

Page 1 of 1

End of Report



Report No. 20220906001/B

Report Issue Date: - 16.09.2022

TEST REPORT

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA PO No. 2016.1201/ 5100019025 Date 13.01.2016 Amendment Dated: - 31.12.2020
2. Purchase order Number	:	05.09.2022/11:40AM
3. Date & Time of Monitoring	:	Air Sample
4. Sample Identification	:	Sealed/Ok
5. Condition of Sample	:	06.09.2022
6. Sample received on	:	06.09.2022 to 15.09.2022
7. Period of Analysis	:	Kharwaria Village
8. Name of Location	:	Instrument Manual
9. Method of Sampling	:	

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	33.6	°C
2.	Relative Humidity	52	%

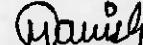
Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.49	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	4.63	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.292	-

Tested by


(Leena Sharma)
Asst.Chemist

Authorized Signatory


(Manish Bhagora)
Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1

End of Report



Report No. 20220907001/A

Report Issue Date: - 16.09.2022

TEST REPORT

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number	:	PO No. 2016.1201/ 5100019025 Date 13.01.2016
3. Date & Time of Monitoring	:	Amendment Dated: - 31.12.2020 06.09.2022/10:45AM
4. Sample Identification	:	Air Sample
5. Condition of Sample	:	Sealed/Ok
6. Sample received on	:	07.09.2022
7. Period of Analysis	:	07.09.2022 to 15.09.2022
8. Name of Location	:	Maton Village
9. Method of Sampling	:	IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1430	Minutes
2.	Average Flow rate for PM10	1:155	M ³ / Min
3.	Ambient Temperature	32.1	°C
4.	Relative Humidity	48	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	55.30	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 Issue date 01.05.2019	30.09	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	9.71	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	12.86	80
5.	Lead	µg/m ³	IS: 5182(Par22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by

Leena
(Leena Sharma)
Asst.Chemist

Authorized Signatory

Manish
(Manish Bhagora)
Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

Note

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Page 1 of 1
End of Report



Report No. 20220907001/B

Report Issue Date: - 16.09.2022

1. Name of Customer
TEST REPORT

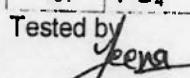
: HINDUSTAN ZINC LIMITED
 Rockphosphate Maton Mine
 P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
 PO No. 2016.1201/ 5100019025 Date 13.01.2016
 Amendment Dated: - 31.12.2020
 06.09.2022/10:45AM
 Air Sample
 Sealed/Ok
 07.09.2022
 07.09.2022 to 15.09.2022
 Maton Village
 Instrument Manual

2. Purchase order Number
3. Date & Time of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample received on
7. Period of Analysis
8. Name of Location
9. Method of Sampling

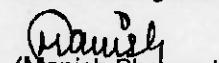
S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	32.1	°C
2.	Relative Humidity	48	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.57	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	5.44	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.379	-

Tested by

 (Leena Sharma)
 Asst.Chemist

Authorized Signatory


 (Manish Bhagora)
 Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
 End of Report



Report No. 20220908001/A

Report Issue Date: - 16.09.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

07.09.2022/10:30AM

Air Sample

Sealed/Ok

08.09.2022

08.09.2022 to 15.09.2022

Lakadwas Village

IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1400	Minutes
2.	Average Flow rate for PM10	1.130	M ³ / Min
3.	Ambient Temperature	31.5	°C
4.	Relative Humidity	56	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	60.27	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019	31.16	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	11.29	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	14.96	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by

Leena Sharma
(Leena Sharma)
Asst.Chemist

Authorized Signatory

Manish
(Manish Bhagora)
Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

Note

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Page 1 of 1
End of Report



TC-5941

Our Commitment.. Your Trust

Report No. 20220908001/B

Report Issue Date: - 16.09.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED
Rockphosphate Maton Mine
P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
PO No. 2016.1201/ 5100019025 Date 13.01.2016
Amendment Dated: - 31.12.2020
07.09.2022/10:30AM
Air Sample
Sealed/Ok
08.09.2022
08.09.2022 to 15.09.2022
Lakadwas Village
Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample received on
7. Period of Analysis
8. Name of Location
7. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	31.5	°C
2.	Relative Humidity	56	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.62	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	6.41	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.412	-

Tested by

Leena
(Leena Sharma)
Asst.Chemist

Authorized Signatory

Manish Bhagora
(Manish Bhagora)
Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report

Report No. 20220909001/A

Report Issue Date: - 16.09.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

08.09.2022/10:35AM

Air Sample

Sealed/Ok

09.09.2022

09.09.2022 to 15.09.2022

Umarda Village

IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample received on

7. Period of Analysis

8. Name of Location

9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1401.10	Minutes
2.	Average Flow rate for PM10	1.120	M ³ / Min
3.	Ambient Temperature	32.8	°C
4.	Relative Humidity	55	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms). New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	63.31	100
2.	PM 2.5	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019	29.86	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	12.28	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	16.12	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by

Leena Sharma
(Leena Sharma)
Ast.Chemist

Authorized Signatory

Manish
(Manish Bhagora)
Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report



Report No. 20220909001/B

Report Issue Date: - 16.09.2022

1. Name of Customer

TEST. REPORT

: HINDUSTAN ZINC LIMITED
 Rockphosphate Maton Mine
 P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
 PO No. 2016.1201/ 5100019025 Date 13.01.2016
 Amendment Dated: - 31.12.2020
 08.09.2022/10:35AM
 Air Sample
 Sealed/Ok
 09.09.2022
 09.09.2022 to 15.09.2022
 Umarda Village
 Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample received on

7. Period of Analysis

8. Name of Location

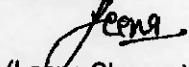
9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	32.8	°C
2.	Relative Humidity	55	%

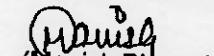
Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.55	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	5.76	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.372	-

Tested by


 (Leena Sharma)
 Asst.Chemist

Authorized Signatory


 (Manish Bhaora)
 Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
 End of Report

Report No. 20220912001/A

Report Issue Date: - 16.09.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED
Rockphosphate Maton Mine
P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
PO No. 2016.1201/ 5100019025 Date 13.01.2016
Amendment Dated: - 31.12.2020
09.09.2022/10:40AM
Air Sample
Sealed/Ok
12.09.2022
12.09.2022 to 15.09.2022
Mine Lease Area
IS: 5182(Part 2, Part 6, Part23,Part22) & Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample received on

7. Period of Analysis

8. Name of Location

9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Duration of Survey	1410	Minutes
2.	Average Flow rate for PM10	1.165	M³/ Min
3.	Ambient Temperature	30.5	°C
4.	Relative Humidity	47	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	PM ₁₀	µg/m ³	IS:5182 (Part 23)2006 RA 2017	52.56	100
2.	PM _{2.5}	µg/m ³	WIL/SOP No. 10/25 issue date 01.05.2019	26.70	60
3.	SO ₂	µg/m ³	IS:5182 (Part 2)2001 Reaff 2017	8.08	80
4.	NO ₂	µg/m ³	IS:5182 (Part 6)2006 Reaff 2017	10.48	80
5.	Lead	µg/m ³	IS: 5182(Part22) 2004 Reaff 2014	BDL(<0.05)	1.0

BDL- Below Detection Limit

Tested by

[Signature]
(Leena Sharma)
Asst.Chemist

Authorized Signatory

[Signature]
(Manish Bhagora)
Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report



Report No. 20220912001/B

Report Issue Date: - 16.09.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

09.09.2022/10:40AM

Air Sample

Sealed/Ok

12.09.2022

12.09.2022 to 15.09.2022

Mine Lease Area

Instrument Manual

2. Purchase order Number

3. Date & Time of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample received on

7. Period of Analysis

8. Name of Location

9. Method of Sampling

S. No	Monitoring Details	Results	Unit
1.	Ambient Temperature	30.5	°C
2.	Relative Humidity	47	%

Results Ambient Air Quality

S. No	Parameters	Unit	Test Method	Results	NAQS (CPCB Norms) New Delhi dt. 18 th Nov. 2009
Chemical Atmospheric Pollution- Ambient Air					
1.	CO	mg/m ³	By CO meter	0.46	04
2.	SiO ₂	µg/m ³	SOP NO.WIL/AIR/TP/ 23/25	4.24	-
3.	PO ₄	µg/m ³	SOP NO.WIL/AIR/TP/ 24/25	0.355	-

Tested by

Leena
(Leena Sharma)
Asst.Chemist

Authorized Signatory

Manish
(Manish Bhagora)
Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 1 of 1
End of Report



Report No. 20220520027

Report Issue Date: 02.06.2022

1. Name of Customer

TEST REPORT
(Noise Level Monitoring)

- 2. Purchase order Number**
- 3. Date of Monitoring**
- 4. Sample Identification**
- 5. Condition of Sample**
- 6. Sample Received On**
- 7. Period of Analysis**
- 8. Test Methods Reference**
- 9. Name of location**

: HINDUSTAN ZINC LIMITED
 Rockphosphate Maton Mine
 P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
 PO No. 2016.1201/ 5100019025 Date 13.01.2016
 Amendment Dated: - 31.12.2020
 20.05.2022
 NA
 NA
 20.05.2022
 NA
 IS: 9989– 1981 (Reaffirmed 2008)
 Kharwaria Village

S.No.	Time hours	Sound Pressure Level dB(A) Day Time			Leq
		L_{10}	L_{50}	L_{90}	
1.	6-7 AM	44.8	46.5	43.2	46.5
2.	7-8 AM	42.3	43.7	40.5	43.8
3.	8-9 AM	39.2	42.1	36.4	42.2
4.	9-10 AM	42.7	43.8	41.7	43.8
5.	10-11 AM	41.3	44.3	38.9	44.4
6.	11-12 AM	59.3	61.2	56.8	61.3
7.	12-13 PM	50.8	52.8	49.6	52.8
8.	13-14 PM	53.3	61.0	49.2	61.3
9.	14-15 PM	49.4	50.3	48.6	50.3
10.	15-16 PM	57.2	60.0	54.0	60.2
11.	16-17 PM	64.1	68.7	49.0	72.5
12.	17-18 PM	62.1	66.4	49.2	69.2
13.	18-19 PM	59.7	63.9	40.5	70.0
14.	19-20 PM	53.1	60.1	40.2	62.9
15.	20-21 PM	49.9	52.6	46.3	52.8
16.	21-22 PM	42.5	43.6	40.2	43.7
Leq Day (Leq = $L_{50} + [(L_{10} - L_{90})^2/60])$					54.9

Note

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Page 1 of 2

Continue





Report No. 20220520027

Report Issue Date: 02.06.2022

TEST REPORT
 (Noise Level Monitoring)

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number	:	PO No. 2016.1201/ 5100019025 Date 13.01.2016 Amendment Dated: - 31.12.2020
3. Date of Monitoring	:	20.05.2022
4. Sample Identification	:	NA
5. Condition of Sample	:	NA
6. Sample Received On	:	20.05.2022
7. Period of Analysis	:	NA
8. Test Methods Reference	:	IS: 9989—1981 (Reaffirmed 2008)
9. Name of location	:	Kharwaria Village

S. No.	Time hours	Sound Pressure Level dB(A) Night Time			Leq
		L ₁₀	L ₅₀	L ₉₀	
1.	22-23PM	45.2	47.1	43.4	47.2
2.	23-24PM	41.7	43.2	40.2	43.2
3.	0-1 AM	37.7	38.7	36.5	38.7
4.	1-2 AM	37.6	42.3	35.6	42.4
5.	2-3 AM	35.3	36.3	33.6	36.3
6.	3-4 AM	28.3	30.2	25.9	30.3
7.	4-5 AM	28.7	30.5	26.5	30.6
8.	5-6 AM	26.1	28.7	24.5	28.7
Leq Night (Leq = L ₅₀ + [(L ₁₀ - L ₉₀) ² /60])					37.2
Day-Night Sound Level (Ldn) = 10 log {1/24 [16 (10Lday/10) + 8 (10(Lnight + 10)/10)]}					
Ldn					53.5

CPCB Norms

S. No	Category of area	Day Time dB 6 A.M. to 10 P.M.	Night Time dB 10 P.M to 6 A.M.
1	Industrial Area	75.0	70.0
2	Commercial Area	65.0	55.0
3	Residential Area	55.0	45.0

Tested By

 (Manish Bhagora)

Asst. Chemist

Note

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5. Any discrepancy in test results should be reported within 15 days.

Authorized Signatory

 (Priyanka Yadav)
 Asst. Chemist
 Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, Mewar Industrial Area, Udaipur (Rajasthan)

 Page 2 of 2
 End of Report




Report No. 20220520028

Report Issue Date: 02.06.2022

TEST REPORT

(Noise Level Monitoring)

1. Name of Customer

:
 HINDUSTAN ZINC LIMITED
 Rockphosphate Maton Mine
 P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
 PO No. 2016.1201/ 5100019025 Date 13.01.2016
 Amendment Dated: - 31.12.2020

2. Purchase order Number

:
 19.05.2022

3. Date of Monitoring

:
 NA

4. Sample Identification

:
 NA

5. Condition of Sample

:
 NA

6. Sample Received On

:
 20.05.2022

7. Period of Analysis

:
 NA

8. Test Methods Reference

:
 IS: 9989– 1981 (Reaffirmed 2008)

9. Name of location

:
 Maton Village

S.No.	Time hours	Sound Pressure Level dB(A) Day Time			Leq
		L ₁₀	L ₅₀	L ₉₀	
1.	6-7 AM	39.7	41.3	37.5	41.4
2.	7-8 AM	40.7	42.5	38.4	42.6
3.	8-9 AM	42.8	43.8	41.2	43.8
4.	9-10 AM	47.1	48.3	45.7	48.3
5.	10-11 AM	48.1	50.2	46.9	50.2
6.	11-12 AM	51.9	53.1	50.2	53.1
7.	12-13 PM	52.5	54.1	51.3	54.1
8.	13-14 PM	52.2	55.3	50.3	55.4
9.	14-15 PM	52.8	55.3	50.2	55.4
10.	15-16 PM	52.3	54.2	50.2	54.3
11.	16-17 PM	52.7	54.3	50.3	54.4
12.	17-18 PM	50.5	52.4	48.3	52.5
13.	18-19 PM	48.1	52.3	45.3	52.4
14.	19-20 PM	48.1	50.2	46.9	50.2
15.	20-21 PM	43.2	52.4	38.3	52.8
16.	21-22 PM	47.1	54.1	39.6	55.0
Leq Day (Leq = L ₅₀ + [(L ₁₀ – L ₉₀) ² /60])					51.0

Note

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Page 1 of 2

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Registered & Corporate Office :

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 Phone : +91 294 2494600 - 02 E-mail : info@wolkem.com
 CIN- U29299RJ1971PLC001379


TC-5941

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Report No. 20220520028

Report Issue Date: 02.06.2022

TEST REPORT

(Noise Level Monitoring)

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number	:	PO No. 2016.1201/ 5100019025 Date 13.01.2016 Amendment Dated: - 31.12.2020
3. Date of Monitoring	:	19.05.2022
4. Sample Identification	:	NA
5. Condition of Sample	:	NA
6. Sample Received On	:	20.05.2022
7. Period of Analysis	:	NA
8. Test Methods Reference	:	IS: 9989– 1981 (Reaffirmed 2008)
9. Name of location	:	Maton Village

S. No.	Time hours	Sound Pressure Level dB(A) Night Time			Leq
		L ₁₀	L ₅₀	L ₉₀	
1.	22-23PM	34.6	35.2	33.3	35.2
2.	23-24PM	35.0	36.3	33.2	36.4
3.	0-1 AM	30.1	32.6	26.9	32.8
4.	1-2 AM	31.7	33.7	30.3	33.7
5.	2-3 AM	26.0	27.8	23.6	27.9
6.	3-4 AM	28.5	31.0	24.7	31.2
7.	4-5 AM	25.1	26.3	24.2	26.3
8.	5-6 AM	25.7	27.5	24.7	27.5
Leq Night (Leq = L ₅₀ + [(L ₁₀ – L ₉₀) ² /60]))					31.4
Day-Night Sound Level (Ldn) = 10 log {1/24 [16 (10Lday/10) + 8 (10(Lnight + 10)/10)]}					
Ldn					49.5

CPCB Norms

S. No	Category of area	Day Time dB 6 A.M. to 10 P.M.	Night Time dB 10 P.M to 6 A.M.
1	Industrial Area	75.0	70.0
2	Commercial Area	65.0	55.0
3	Residential Area	55.0	45.0

Tested By

 (Manish Bhagora)

Asst. Chemist

Note

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 Page 2 of 2
 End of Report

Authorized Signatory

 (Priyanka Yadav)

 Asst. Chemist
 Environmental & Chemical Laboratory

 Wolkem India Limited
 E-102, MIA, UDAIPUR (Rajasthan)


TC-5941

Our Commitment. Your Trust



Report No. 20220520029

Report Issue Date: 02.06.2022

TEST REPORT (Noise Level Monitoring)

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number	:	PO No. 2016.1201/ 5100019025 Date 13.01.2016 Amendment Dated: - 31.12.2020
3. Date of Monitoring	:	18.05.2022
4. Sample Identification	:	NA
5. Condition of Sample	:	NA
6. Sample Received On	:	20.05.2022
7. Period of Analysis	:	NA
8. Test Methods Reference	:	IS: 9989– 1981 (Reaffirmed 2008)
9. Name of location	:	Lakadwas Village

S.No.	Time hours	Sound Pressure Level dB(A) Day Time			Leq
		L ₁₀	L ₅₀	L ₉₀	
1.	6-7 AM	39.2	41.2	37.6	41.2
2.	7-8 AM	39.8	42.1	38.4	42.1
3.	8-9 AM	41.8	43.6	39.6	43.7
4.	9-10 AM	43.1	44.8	40.0	45.0
5.	10-11 AM	50.7	52.3	48.6	52.4
6.	11-12 AM	53.9	55.5	51.4	55.6
7.	12-13 PM	48.4	51.5	46.7	51.5
8.	13-14 PM	48.5	51.6	46.7	51.7
9.	14-15 PM	48.4	50.7	46.7	50.7
10.	15-16 PM	49.4	51.4	46.6	51.5
11.	16-17 PM	48.2	51.4	45.9	51.5
12.	17-18 PM	49.0	50.7	46.6	50.8
13.	18-19 PM	51.6	54.7	47.7	55.0
14.	19-20 PM	36.1	38.1	34.6	38.1
15.	20-21 PM	37.8	39.2	35.4	39.3
16.	21-22 PM	39.3	43.6	35.0	43.9
Leq Day (Leq = L ₅₀ + [(L ₁₀ – L ₉₀) ² /60])					47.8

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Continue





Report No. 20220520029

Report Issue Date: 02.06.2022

TEST REPORT
(Noise Level Monitoring)

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA PO No. 2016.1201/ 5100019025 Date 13.01.2016
2. Purchase order Number	:	Amendment Dated: - 31.12.2020
3. Date of Monitoring	:	18.05.2022
4. Sample Identification	:	NA
5. Condition of Sample	:	NA
6. Sample Received On	:	20.05.2022
7. Period of Analysis	:	NA
8. Test Methods Reference	:	IS: 9989— 1981 (Reaffirmed 2008)
9. Name of location	:	Lakadwas Village

S. No.	Time hours	Sound Pressure Level dB(A) Night Time			Leq
		L ₁₀	L ₅₀	L ₉₀	
1.	22-23PM	32.2	34.5	30.6	34.5
2.	23-24PM	32.9	34.6	31.4	34.6
3.	0-1 AM	33.1	34.2	31.8	34.2
4.	1-2 AM	31.6	33.3	29.5	33.4
5.	2-3 AM	28.3	31.5	25.6	31.6
6.	3-4 AM	26.5	28.5	24.5	28.6
7.	4-5 AM	26.1	30.4	23.6	30.5
8.	5-6 AM	25.8	27.4	24.2	27.4
Leq Night (Leq = L ₅₀ + [(L ₁₀ - L ₉₀) ² /60]))					31.9
Day-Night Sound Level (Ldn) = 10 log {1/24 [16 (10Lday/10) + 8 (10(Lnight + 10)/10)]}					
Ldn					46.5

CPCB Norms

S. No	Category of area	Day Time dB 6 A.M. to 10 P.M.	Night Time dB 10 P.M to 6 A.M.
1	Industrial Area	75.0	70.0
2	Commercial Area	65.0	55.0
3	Residential Area	55.0	45.0

Tested By

(Manish Bhagora)

Asst. Chemist

Note

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Authorized Signatory

 Priyanka Yadav

Asst. Chemist

Environmental & Chemical Laboratory

Wolkem India Limited

Udaipur (Rajasthan)

 Page 2 of 2
 End of Report




INDIA LIMITED

Laboratory : E- 102, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan (INDIA)

Phone : 91 294 2494600 to 02 E-mail : info.wcs@wolkem.com



www.wolkem.com

Report No. 20220520030

Report Issue Date: 02.06.2022

TEST REPORT

(Noise Level Monitoring)

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA PO No. 2016.1201/ 5100019025 Date 13.01.2016 Amendment Dated: - 31.12.2020
2. Purchase order Number	:	
3. Date of Monitoring	:	17.05.2022
4. Sample Identification	:	NA
5. Condition of Sample	:	NA
6. Sample Received On	:	20.05.2022
7. Period of Analysis	:	NA
8. Test Methods Reference	:	IS: 9989– 1981 (Reaffirmed 2008)
9. Name of location	:	Umarda Village

S.No.	Time hours	Sound Pressure Level dB(A) Day Time			Leq
		L ₁₀	L ₅₀	L ₉₀	
1.	6-7 AM	49.8	52.1	48.1	52.1
2.	7-8 AM	50.5	52.1	49.1	52.1
3.	8-9 AM	54.2	55.5	52.8	55.5
4.	9-10 AM	54.9	56.1	53.1	56.2
5.	10-11 AM	60.3	61.3	58.7	61.3
6.	11-12 AM	64.1	65.3	62.7	65.3
7.	12-13 PM	67.0	69.1	64.4	69.2
8.	13-14 PM	63.9	66.4	62.1	66.5
9.	14-15 PM	63.0	64.1	61.5	64.1
10.	15-16 PM	55.0	60.1	52.0	60.3
11.	16-17 PM	57.3	60.4	54.4	60.5
12.	17-18 PM	57.2	59.2	54.0	59.4
13.	18-19 PM	56.2	58.7	54.5	58.7
14.	19-20 PM	54.9	59.2	53.1	59.3
15.	20-21 PM	51.6	53.0	49.4	53.1
16.	21-22 PM	49.8	51.2	47.7	51.3
Leq Day (Leq = L ₅₀ + [(L ₁₀ – L ₉₀) ² /60])					59.1

Note

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TC-5941

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Report No. 20220520030

Report Issue Date: 02.06.2022

1. Name of Customer
TEST REPORT
 (Noise Level Monitoring)

2. Purchase order Number

:
 HINDUSTAN ZINC LIMITED
 Rockphosphate Maton Mine
 P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
 PO No. 2016.1201/ 5100019025 Date 13.01.2016
 Amendment Dated: - 31.12.2020
 17.05.2022
 NA
 NA
 20.05.2022
 NA
 IS: 9989—1981 (Reaffirmed 2008)
 Umarda Village

3. Date of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample Received On
7. Period of Analysis
8. Test Methods Reference
9. Name of location

S. No.	Time hours	Sound Pressure Level dB(A)			Leq
		L ₁₀	L ₅₀	L ₉₀	
1.	22-23PM	40.7	44.1	38.4	44.2
2.	23-24PM	38.7	40.1	37.4	40.1
3.	0-1 AM	30.4	33.3	27.5	33.4
4.	1-2 AM	30.0	33.4	27.6	33.5
5.	2-3 AM	27.4	30.4	24.5	30.5
6.	3-4 AM	26.3	27.5	24.6	27.5
7.	4-5 AM	27.9	30.4	24.3	30.6
8.	5-6 AM	28.0	30.4	24.6	30.6
Leq Night (Leq = L ₅₀ + [(L ₁₀ - L ₉₀) ² /60])					33.8
Day-Night Sound Level (Ldn) = 10 log {1/24 [16 (10Lday/10) + 8 (10(Lnight + 10)/10)]}					
Ldn					57.4

CPCB Norms

S. No	Category of area	Day Time dB		Night Time dB 10 P.M to 6 A.M
		6 A.M. to 10 P.M.	10 P.M to 6 A.M.	
1	Industrial Area	75.0	70.0	
2	Commercial Area	65.0	55.0	
3	Residential Area	55.0	45.0	

Tested By

Manish

(Manish Bhagora)

Asst. Chemist

Note

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Authorized Signatory


 (Priyanka Yadav)

Asst. Chemist

Environmental & Chemical Laboratory

Wolkem India Limited




Laboratory : E- 102, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan (INDIA)

INDIA LIMITED

Phone : 91 294 2494600 to 02 E-mail : info.wcs@wolkem.com



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Report No. 20220520031

Report Issue Date: 02.06.2022

TEST REPORT (Noise Level Monitoring)

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number	:	PO No. 2016.1201/ 5100019025 Date 13.01.2016 Amendment Dated: - 31.12.2020
3. Date of Monitoring	:	16.05.2022
4. Sample Identification	:	NA
5. Condition of Sample	:	NA
6. Sample Received On	:	20.05.2022
7. Period of Analysis	:	NA
8. Test Methods Reference	:	IS: 9989- 1981 (Reaffirmed 2008)
9. Name of location	:	Mine Lease Area

S.No.	Time hours	Sound Pressure Level dB(A)			Leq
		L ₁₀	L ₅₀	L ₉₀	
1.	6-7 AM	40.3	41.6	38.5	41.7
2.	7-8 AM	40.8	44.3	37.6	44.5
3.	8-9 AM	42.1	44.5	38.6	44.7
4.	9-10 AM	42.7	45.0	41.4	45.0
5.	10-11 AM	46.1	49.3	42.7	49.5
6.	11-12 AM	52.8	58.1	48.7	58.4
7.	12-13 PM	53.0	57.8	49.5	58.0
8.	13-14 PM	54.4	57.4	49.7	57.8
9.	14-15 PM	49.0	54.1	40.5	55.3
10.	15-16 PM	51.6	57.6	38.6	60.4
11.	16-17 PM	52.0	59.3	41.7	61.1
12.	17-18 PM	39.0	49.3	32.4	50.0
13.	18-19 PM	42.3	58.1	34.2	59.2
14.	19-20 PM	44.5	57.8	35.1	59.3
15.	20-21 PM	37.8	40.3	33.4	40.6
16.	21-22 PM	35.8	38.2	31.6	38.5
Leq Day (Leq = L ₅₀ + [(L ₁₀ - L ₉₀) ² /60]))					51.5

Note

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Report No. 20220520031

Report Issue Date: 02.06.2022

TEST REPORT

(Noise Level Monitoring)

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA PO No. 2016.1201/ 5100019025 Date 13.01.2016 Amendment Dated: - 31.12.2020
2. Purchase order Number	:	16.05.2022
3. Date of Monitoring	:	NA
4. Sample Identification	:	NA
5. Condition of Sample	:	NA
6. Sample Received On	:	20.05.2022
7. Period of Analysis	:	NA
8. Test Methods Reference	:	IS: 9989— 1981 (Reaffirmed 2008)
9. Name of location	:	Mine Lease Area

S. No.	Time hours	Sound Pressure Level dB(A) Night Time			Leq
		L ₁₀	L ₅₀	L ₉₀	
1.	22-23PM	33.5	35.2	32.1	35.2
2.	23-24PM	32.7	33.5	31.4	33.5
3.	0-1 AM	33.0	35.2	30.6	35.3
4.	1-2 AM	28.1	30.4	25.6	30.5
5.	2-3 AM	28.8	31.1	26.3	31.2
6.	3-4 AM	25.4	28.4	23.6	28.5
7.	4-5 AM	25.6	28.4	23.6	28.5
8.	5-6 AM	26.3	29.6	22.6	29.8
Leq Night (Leq = L ₅₀ + [(L ₁₀ - L ₉₀) ² /60]])					31.6
Day-Night Sound Level (Ldn) = 10 log {1/24 [16 (10Lday/10) + 8 (10(Lnight + 10)/10)]}					
Ldn					49.9

CPCB Norms

S. No	Category of area	Day Time dB 6 A.M. to 10 P.M.	Night Time dB 10 P.M to 6 A.M.
1	Industrial Area	75.0	70.0
2	Commercial Area	65.0	55.0
3	Residential Area	55.0	45.0

Tested By

(Manish Bhagora)
 Asst. Chemist

Note

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Page 2 of 2
End of Report

Authorized Signatory

(Priyanka Yadav)
 Asst. Chemist
 Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan

Registered & Corporate Office :
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Report No. 20220520032

Report Issue Date: 02.06.2022

TEST REPORT

(Noise Level Monitoring)

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number	:	PO No. 2016.1201/ 5100019025 Date 13.01.2016
3. Date of Monitoring	:	Amendment Dated: - 31.12.2020
4. Sample Identification	:	20.05.2022
5. Condition of Sample	:	NA
6. Sample Received On	:	NA
7. Period of Analysis	:	20.05.2022
8. Test Methods Reference	:	NA
9. Name of location	:	IS: 9989— 1981 (Reaffirmed 2008) Udaisagar

S.No.	Time hours	Sound Pressure Level dB(A)			Leq
		L ₁₀	L ₅₀	L ₉₀	
1.	6-7 AM	38.9	40.2	37.6	40.2
2.	7-8 AM	41.1	42.6	38.4	42.7
3.	8-9 AM	42.4	44.6	40.8	44.6
4.	9-10 AM	43.6	44.5	41.8	44.6
5.	10-11 AM	45.3	54.2	41.2	54.5
6.	11-12 AM	54.7	56.8	52.3	56.9
7.	12-13 PM	46.1	47.6	44.7	47.6
8.	13-14 PM	46.8	48.0	45.0	48.1
9.	14-15 PM	47.0	49.6	46.0	49.6
10.	15-16 PM	54.1	57.8	52.0	57.9
11.	16-17 PM	47.7	53.0	45.9	53.1
12.	17-18 PM	52.9	58.3	50.3	58.4
13.	18-19 PM	45.6	47.3	43.5	47.4
14.	19-20 PM	44.0	45.6	42.3	45.6
15.	20-21 PM	42.0	44.6	39.5	44.7
16.	21-22 PM	41.1	43.6	38.6	43.7
Leq Day (Leq = L ₅₀ + [(L ₁₀ - L ₉₀) ² /60])					48.7

Note

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TC-5941

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Report No. 20220520032

Report Issue Date: 02.06.2022

TEST REPORT

(Noise Level Monitoring)

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA PO No. 2016.1201/ 5100019025 Date 13.01.2016 Amendment Dated: - 31.12.2020
2. Purchase order Number	:	
3. Date of Monitoring	:	20.05.2022
4. Sample Identification	:	NA
5. Condition of Sample	:	NA
6. Sample Received On	:	20.05.2022
7. Period of Analysis	:	NA
8. Test Methods Reference	:	IS: 9989—1981 (Reaffirmed 2008)
9. Name of location	:	Udaisagar

S. No.	Time hours	Sound Pressure Level dB(A) Night Time			Leq
		L ₁₀	L ₅₀	L ₉₀	
1.	22-23PM	38.6	39.6	36.8	39.7
2.	23-24PM	38.0	39.6	36.5	39.6
3.	0-1 AM	33.8	36.2	30.5	36.4
4.	1-2 AM	28.3	30.2	25.9	30.3
5.	2-3 AM	28.7	30.5	26.5	30.6
6.	3-4 AM	26.0	26.9	24.6	26.9
7.	4-5 AM	26.7	28.6	24.7	28.7
8.	5-6 AM	26.4	29.4	24.3	29.5
Leq Night (Leq = L ₅₀ + [(L ₁₀ - L ₉₀) ² /60])					32.7
Day-Night Sound Level (Ldn) = 10 log {1/24 [16 (10Lday/10) + 8 (10(Lnight + 10)/10)]}					
Ldn					47.5

CPCB Norms

S. No	Category of area	Day Time dB 6 A.M. to 10 P.M.	Night Time dB 10 P.M to 6 A.M.
1	Industrial Area	75.0	70.0
2	Commercial Area	65.0	55.0
3	Residential Area	55.0	45.0

Tested By

Manish
(Manish Bhagora)

Asst. Chemist

Note

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Page 2 of 2
End of Report

Registered & Corporate Office :

"Wolkem House", E-101, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan-India
Phone : +91 294 2494600 - 02 E-mail : info@wolkem.com
CIN- U29299RJ1971PLC001379

Environmental & Chemical Laboratory
Wolkem India Limited



TC-5941

Our Commitment.. Your Trust



Report No. 20220808002

Report Issue Date: 26.08.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

01.08.2022

NA

NA

08.08.2022

NA

IS: 9989— 1981 (Reaffirmed 2008)

Kharwaria Village

2. Purchase order Number

3. Date of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample Received On

7. Period of Analysis

8. Test Methods Reference

9. Name of location

S.No.	Time hours	Sound Pressure Level dB(A)			Leq
		L ₁₀	L ₅₀	L ₉₀	
1.	6-7 AM	38.6	41.2	34.6	41.5
2.	7-8 AM	42.0	44.3	39.6	44.4
3.	8-9 AM	42.1	44.5	38.6	44.7
4.	9-10 AM	45.4	46.8	43.6	46.9
5.	10-11 AM	45.0	48.6	42.6	48.7
6.	11-12 AM	52.8	58.1	48.7	58.4
7.	12-13 PM	56.7	59.6	53.6	59.8
8.	13-14 PM	54.4	57.4	49.7	57.8
9.	14-15 PM	53.1	57.4	51.2	57.5
10.	15-16 PM	56.3	57.8	52.4	58.0
11.	16-17 PM	56.9	59.6	53.6	59.8
12.	17-18 PM	53.1	55.2	49.6	55.4
13.	18-19 PM	49.2	52.6	45.5	52.8
14.	19-20 PM	48.8	52.6	46.6	52.7
15.	20-21 PM	45.2	48.5	40.3	48.9
16.	21-22 PM	45.5	47.5	42.6	47.6
Leq Day (Leq = L ₅₀ + [(L ₁₀ - L ₉₀) ² /60])					52.2

Note

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Page 1 of 2

Continue



TC-5941

Our Commitment.. Your Trust



Report No. 20220808002

Report Issue Date: 26.08.2022

TEST REPORT

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA PO No. 2016.1201/ 5100019025 Date 13.01.2016 Amendment Dated: - 31.12.2020
2. Purchase order Number	:	
3. Date of Monitoring	:	01.08.2022
4. Sample Identification	:	NA
5. Condition of Sample	:	NA
6. Sample Received On	:	08.08.2022
7. Period of Analysis	:	NA
8. Test Methods Reference	:	IS: 9989—1981 (Reaffirmed 2008)
9. Name of location	:	Kharwaria Village

S. No.	Time hours	Sound Pressure Level dB(A) Night Time			Leq
		L ₁₀	L ₅₀	L ₉₀	
1.	22-23PM	46.3	48.6	44.7	48.6
2.	23-24PM	44.8	47.5	41.8	47.6
3.	0-1 AM	38.9	45.6	33.2	46.1
4.	1-2 AM	34.1	38.5	30.4	38.7
5.	2-3 AM	33.0	35.5	30.1	35.6
6.	3-4 AM	32.9	35.2	31.4	35.2
7.	4-5 AM	38.0	40.5	34.6	40.7
8.	5-6 AM	40.1	41.2	38.9	41.2
L _{eq} Night (L _{eq} = L ₅₀ + [(L ₁₀ - L ₉₀) ² /60]))					41.7
Day-Night Sound Level (L _{dn}) = 10 log {1/24 [16 (10L _{day} /10) + 8 (10(L _{night} + 10)/10)]}}					
L _{dn}					52.0

CPCB Norms

S. No	Category of area	Day Time dB	Night Time dB
		6 A.M. to 10 P.M.	10 P.M. to 6 A.M.
1	Industrial Area	75.0	70.0
2	Commercial Area	65.0	55.0
3	Residential Area	55.0	45.0

Tested By

 (Priyanka Yadav)
 Asst. Chemist

Authorized Signatory

 (Priyanka Yadav)
 Asst. Chemist

Environmental & Chemical Laboratory

Wolkem India Limited

E-102, M.I.A., UDAIPUR (Rajasthan)

Note

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Page 2 of 2

End of Report

Registered & Corporate Office :

"Wolkem House", E-101, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan-India

 Phone : +91 294 2494600 - 02 E-mail : Info@wolkem.com

CIN- U29299RJ1971PLC001379



TC-5941

Our Commitment, Your Trust

Report No. 20220808003

Report Issue Date: 26.08.2022

1. Name of Customer

TEST REPORT

: HINDUSTAN ZINC LIMITED
 Rockphosphate Maton Mine
 P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
 PO No. 2016.1201/ 5100019025 Date 13.01.2016
 Amendment Dated: - 31.12.2020
 02.08.2022
 NA
 NA
 08.08.2022
 NA
 IS: 9989– 1981 (Reaffirmed 2008)
 Maton Village

2. Purchase order Number

3. Date of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample Received On

7. Period of Analysis

8. Test Methods Reference

9. Name of location

S.No.	Time hours	Sound Pressure Level dB(A)			Leq
		Day	L₁₀	L₅₀	
1.	6-7 AM		49.8	52.1	48.1
2.	7-8 AM		51.1	53.2	49.1
3.	8-9 AM		53.3	55.5	51.4
4.	9-10 AM		53.8	55.7	51.4
5.	10-11 AM		56.4	59.7	52.6
6.	11-12 AM		54.1	57.8	51.5
7.	12-13 PM		53.8	55.8	51.4
8.	13-14 PM		52.1	55.3	49.6
9.	14-15 PM		50.1	52.3	47.6
10.	15-16 PM		51.1	54.2	48.7
11.	16-17 PM		48.7	51.3	45.6
12.	17-18 PM		46.9	50.3	42.6
13.	18-19 PM		48.1	50.4	46.3
14.	19-20 PM		43.2	45.8	40.7
15.	20-21 PM		45.1	50.5	42.6
16.	21-22 PM		44.1	50.6	41.6
Leq Day (Leq = L ₅₀ + [(L ₁₀ – L ₉₀) ² /60])					53.3

Note

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Continue





Report No. 20220808003

Report Issue Date: 26.08.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

02.08.2022

NA

NA

08.08.2022

NA

IS: 9989- 1981 (Reaffirmed 2008)

Maton Village

2. Purchase order Number

3. Date of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample Received On

7. Period of Analysis

8. Test Methods Reference

9. Name of location

S. No.	Time hours	Sound Pressure Level dB(A)			Leq
		L ₁₀	L ₅₀	L ₉₀	
1.	22-23PM	46.6	48.6	44.6	48.7
2.	23-24PM	45.9	48.6	42.6	48.8
3.	0-1 AM	39.7	45.6	33.3	46.3
4.	1-2 AM	38.3	47.6	34.6	47.8
5.	2-3 AM	34.9	38.6	31.4	38.8
6.	3-4 AM	35.3	37.4	33.5	37.5
7.	4-5 AM	36.6	39.6	31.6	40.0
8.	5-6 AM	36.5	39.5	34.6	39.6
Leq Night (Leq = L ₅₀ + [(L ₁₀ - L ₉₀) ² /60])					43.3
Day-Night Sound Level (Ldn) = 10 log {1/24 [16 (10Lday/10) + 8 (10(Lnight + 10)/10)]}					
Ldn					53.3

CPCB Norms

S. No	Category of area	Day Time dB 6 A.M. to 10 P.M.	Night Time dB 10 P.M to 6 A.M.
1	Industrial Area	75.0	70.0
2	Commercial Area	65.0	55.0
3	Residential Area	55.0	45.0

Tested By

Leena Sharma
(Leena Sharma)
Asst.Chemist

Authorized Signatory

Priyanka Yadav
(Priyanka Yadav)

Asst. Chemist

Environmental & Chemical Laboratory

Wolkem India Limited

E-102, M.I.A., UDAIPUR (Rajasthan)

- Note
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Page 2 of 2

End of Report

Registered & Corporate Office :

"Wolkem House", E-101, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan-India
Phone : +91 294 2494600 - 02 E-mail : info@wolkem.com
CIN- U29299RJ1971PLC001379



TC-5941

Our Commitment.. Your Trust

Report No. 20220808004

Report Issue Date: 26.08.2022

1. Name of Customer
TEST REPORT

: HINDUSTAN ZINC LIMITED
 Rockphosphate Maton Mine
 P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
 PO No. 2016.1201/ 5100019025 Date 13.01.2016
 Amendment Dated: - 31.12.2020
 03.08.2022
 NA
 NA
 08.08.2022
 NA
 IS: 9989—1981 (Reaffirmed 2008)
 Lakadwas Village

2. Purchase order Number

- 3. Date of Monitoring**
4. Sample Identification
5. Condition of Sample
6. Sample Received On
7. Period of Analysis
8. Test Methods Reference
9. Name of location

S.No.	Time hours	Sound Pressure Level dB(A)			Leq
		L₁₀	L₅₀	L₉₀	
1.	6-7 AM	39.7	42.2	35.6	42.5
2.	7-8 AM	46.5	50.3	40.6	50.9
3.	8-9 AM	44.7	47.5	42.3	47.6
4.	9-10 AM	46.3	47.8	44.6	47.9
5.	10-11 AM	46.0	49.6	43.6	49.7
6.	11-12 AM	53.8	59.1	49.7	59.4
7.	12-13 PM	57.7	60.6	54.6	60.8
8.	13-14 PM	55.4	58.4	50.7	58.8
9.	14-15 PM	54.1	58.4	52.2	58.5
10.	15-16 PM	57.3	58.8	53.4	59.1
11.	16-17 PM	57.9	60.6	54.6	60.8
12.	17-18 PM	54.1	56.2	50.6	56.4
13.	18-19 PM	51.8	56.6	48.6	56.8
14.	19-20 PM	49.6	53.6	45.6	53.9
15.	20-21 PM	42.8	48.5	38.8	48.8
16.	21-22 PM	44.2	48.5	41.7	48.6
		Leq Day (Leq = L ₅₀ + [(L ₁₀ - L ₉₀) ² /60]))			53.8

Note

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Page 1 of 2

Continue





Laboratory : E- 102, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan (INDIA)



INDIA LIMITED

Phone : 91 294 2494600 to 02 E-mail : info.wcs@wolkem.com

www.wolkem.com

Report No. 20220808004

Report Issue Date: 26.08.2022

TEST REPORT	
1. Name of Customer	: HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number	: PO No. 2016.1201/ 5100019025 Date 13.01.2016 Amendment Dated: - 31.12.2020
3. Date of Monitoring	: 03.08.2022
4. Sample Identification	: NA
5. Condition of Sample	: NA
6. Sample Received On	: 08.08.2022
7. Period of Analysis	: NA
8. Test Methods Reference	: IS: 9989- 1981 (Reaffirmed 2008)
9. Name of location	: Lakadwas Village

S. No.	Time hours	Sound Pressure Level dB(A)			Leq
		L ₁₀	L ₅₀	L ₉₀	
1.	22-23PM	47.2	48.6	45.6	48.6
2.	23-24PM	44.9	47.2	42.6	47.3
3.	0-1 AM	43.4	49.6	38.4	50.0
4.	1-2 AM	34.0	37.5	30.5	37.7
5.	2-3 AM	32.8	36.4	30.5	36.5
6.	3-4 AM	33.5	36.9	31.4	37.0
7.	4-5 AM	32.8	35.8	30.3	35.9
8.	5-6 AM	33.5	38.3	30.4	38.5
Leq Night (Leq = L ₅₀ + [(L ₁₀ - L ₉₀) ² /60]))					41.4
Day-Night Sound Level (Ldn) = 10 log {1/24 [16 (10Lday/10) + 8 (10(Lnight + 10)/10)]}					
Ldn					53.1

CPCB Norms

S. No	Category of area	Day Time dB 6 A.M. to 10 P.M.	Night Time dB 10 P.M to 6 A.M.
1	Industrial Area	75.0	70.0
2	Commercial Area	65.0	55.0
3	Residential Area	55.0	45.0

Tested By
[Signature]
(Leena Sharma)
Asst.Chemist

Authorized Signatory

[Signature]
(Priyanka Yadav)
Asst. Chemist

Environmental & Chemical Laboratory
Wolkem India Limited

E-102, M.I.A., UDAIPUR (Rajasthan)

- Note
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Page 2 of 2
End of Report

Registered & Corporate Office :
"Wolkem House", E-101, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan-India
Phone : +91 294 2494600 - 02 E-mail : info@wolkem.com
CIN- U29299RJ1971PLC001379



TC-5941
Our Commitment.. Your Trust

Report No. 20220808005

Report Issue Date: 26.08.2022

1. Name of Customer

TEST REPORT

2. Purchase order Number
3. Date of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample Received On
7. Period of Analysis
8. Test Methods Reference
9. Name of location

:

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

04.08.2022

NA

NA

08.08.2022

NA

IS: 9989– 1981 (Reaffirmed 2008)

Umarda Village

S.No.	Time hours	Sound Pressure Level dB(A)			Leq
		L ₁₀	L ₅₀	L ₉₀	
1.	6-7 AM	39.7	41.3	37.5	41.4
2.	7-8 AM	44.9	48.7	41.2	48.9
3.	8-9 AM	43.9	46.6	42.5	46.6
4.	9-10 AM	47.1	48.3	45.7	48.3
5.	10-11 AM	49.4	51.1	47.2	51.2
6.	11-12 AM	51.9	53.1	50.2	53.1
7.	12-13 PM	59.2	61.2	55.8	61.4
8.	13-14 PM	58.5	61.3	54.7	61.5
9.	14-15 PM	58.5	60.5	54.7	60.7
10.	15-16 PM	52.3	54.2	50.2	54.3
11.	16-17 PM	52.7	54.3	50.3	54.4
12.	17-18 PM	53.7	56.3	52.3	56.3
13.	18-19 PM	56.0	58.4	52.8	58.6
14.	19-20 PM	50.3	52.3	48.2	52.4
15.	20-21 PM	46.5	48.7	42.6	49.0
16.	21-22 PM	43.4	47.5	40.2	47.7
Leq Day (Leq = L ₅₀ + [(L ₁₀ – L ₉₀) ² /60]))					52.9

Note

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Page 1 of 2

Continue





Report No. 20220808005

Report Issue Date: 26.08.2022

1. Name of Customer
TEST REPORT

:

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

04.08.2022

NA

NA

08.08.2022

NA

IS: 9989— 1981 (Reaffirmed 2008)

Umarda Village

2. Purchase order Number

3. Date of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample Received On
7. Period of Analysis
8. Test Methods Reference
9. Name of location

S. No.	Time hours	Sound Pressure Level dB(A)			Leq
		L ₁₀	L ₅₀	L ₉₀	
1.	22-23PM	46.1	48.5	42.6	48.7
2.	23-24PM	44.4	47.5	42.3	47.6
3.	0-1 AM	42.0	44.6	38.9	44.8
4.	1-2 AM	36.1	39.8	32.6	40.0
5.	2-3 AM	33.4	36.2	32.3	36.2
6.	3-4 AM	32.8	35.6	31.5	35.6
7.	4-5 AM	34.2	36.4	32.4	36.5
8.	5-6 AM	33.6	36.4	32.5	36.4
Leq Night (Leq = L ₅₀ + [(L ₁₀ - L ₉₀) ² /60])					47.0
Day-Night Sound Level (Ldn) = 10 log {1/24 [16 (10Lday/10) + 8 (10(Lnight + 10)/10)]}					
Ldn					52.3

CPCB Norms

S. No	Category of area	Day Time dB	Night Time dB
		6 A.M. to 10 P.M.	10 P.M. to 6 A.M.
1	Industrial Area	75.0	70.0
2	Commercial Area	65.0	55.0
3	Residential Area	55.0	45.0

Tested By

 (Leena Sharma)
 Asst.Chemist

Authorized Signatory

 Priyanka Yadav
 Asst. Chemist

 Environmental & Chemical Laboratory
Wolkem India Limited

E-102, M.I.A., UDAIPUR (Rajasthan)

Note

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5. Any discrepancy in test results should be reported within 15 days.

 Page 2 of 2
 End of Report

Registered & Corporate Office :

 "Wolkem House", E-101, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan-India
 Phone : +91 294 2494600 - 02 E-mail : info@wolkem.com
 CIN- U28299RJ1971PLC001379


TC-5941

Our Commitment.. Your Trust

Report No. 20220808006

Report Issue Date: 26.08.2022

TEST REPORT

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA PO No. 2016.1201/ 5100019025 Date 13.01.2016 Amendment Dated: - 31.12.2020
2. Purchase order Number	:	05.08.2022
3. Date of Monitoring	:	NA
4. Sample Identification	:	NA
5. Condition of Sample	:	NA
6. Sample Received On	:	08.08.2022
7. Period of Analysis	:	NA
8. Test Methods Reference	:	IS: 9989– 1981 (Reaffirmed 2008)
9. Name of location	:	Mine Lease Area

S.No.	Time hours	Sound Pressure Level dB(A) Day Time			Leq
		L ₁₀	L ₅₀	L ₉₀	
1.	6-7 AM	44.8	46.5	43.2	46.5
2.	7-8 AM	42.3	43.7	40.5	43.8
3.	8-9 AM	39.2	42.1	36.4	42.2
4.	9-10 AM	42.7	43.8	41.7	43.8
5.	10-11 AM	41.3	44.3	38.9	44.4
6.	11-12 AM	59.3	61.2	56.8	61.3
7.	12-13 PM	50.8	52.8	49.6	52.8
8.	13-14 PM	53.3	61.0	49.2	61.3
9.	14-15 PM	49.4	50.3	48.6	50.3
10.	15-16 PM	57.2	60.0	54.0	60.2
11.	16-17 PM	52.3	55.3	50.6	55.3
12.	17-18 PM	51.6	55.2	48.9	55.3
13.	18-19 PM	52.5	56.6	50.3	56.7
14.	19-20 PM	52.9	56.6	40.2	61.3
15.	20-21 PM	49.9	52.6	46.3	52.8
16.	21-22 PM	42.5	43.6	40.2	43.7
Leq Day (Leq = L ₅₀ + [(L ₁₀ – L ₉₀) ² /60]))					52.0

Note

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Page 1 of 2

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Registered & Corporate Office :

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Phone : +91 294 2494600 - 02 E-mail : info@wolkem.com

CIN- U29299RJ1971PLC001379



TC-5941

Our Commitment.. Your Trust



Report No. 20220808006

Report Issue Date: 26.08.2022

TEST REPORT

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA PO No. 2016.1201/ 5100019025 Date 13.01.2016 Amendment Dated: - 31.12.2020
2. Purchase order Number	:	
3. Date of Monitoring	:	05.08.2022
4. Sample Identification	:	NA
5. Condition of Sample	:	NA
6. Sample Received On	:	08.08.2022
7. Period of Analysis	:	NA
8. Test Methods Reference	:	IS: 9989- 1981 (Reaffirmed 2008)
9. Name of location	:	Mine Lease Area

S. No.	Time hours	Sound Pressure Level dB(A) Night Time			Leq
		L ₁₀	L ₅₀	L ₉₀	
1.	22-23PM	45.2	47.1	43.4	47.2
2.	23-24PM	45.5	48.5	42.6	48.6
3.	0-1 AM	42.7	48.6	38.6	48.9
4.	1-2 AM	37.6	42.3	35.6	42.4
5.	2-3 AM	35.3	36.3	33.6	36.3
6.	3-4 AM	33.4	35.2	32.3	35.2
7.	4-5 AM	32.1	36.4	30.1	36.5
8.	5-6 AM	33.6	36.8	30.4	37.0
Leq Night (Leq = L ₅₀ + [(L ₁₀ - L ₉₀) ² /60])					41.5
Day-Night Sound Level (Ldn) = 10 log {1/24 [16 (10Lday/10) + 8 (10(Lnight + 10)/10)]}					
Ldn					51.8

CPCB Norms

S. No	Category of area	Day Time dB 6 A.M. to 10 P.M.	Night Time dB 10 P.M. to 6 A.M.
1	Industrial Area	75.0	70.0
2	Commercial Area	65.0	55.0
3	Residential Area	55.0	45.0

Tested By

Leena Sharma
(Leena Sharma)
Asst.Chemist

Authorized Signatory

Priyanka Yadav
(Priyanka Yadav)
Asst. Chemist

 Environmental & Chemical Laboratory
Wolkem India Limited

E-102, M.I.A., UDAIPUR (Rajasthan)

Note

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 Page 2 of 2
End of Report


Report No. 20220808007

1. Name of Customer

TEST REPORT

Report Issue Date: 26.08.2022

2. Purchase order Number

: HINDUSTAN ZINC LIMITED
Rockphosphate Maton Mine
P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
PO No. 2016.1201/ 5100019025 Date 13.01.2016
Amendment Dated: - 31.12.2020
06.08.2022
NA
NA
08.08.2022
NA
IS: 9989– 1981 (Reaffirmed 2008)
Nr. Udaisagar

3. Date of Monitoring
4. Sample Identification
5. Condition of Sample
6. Sample Received On
7. Period of Analysis
8. Test Methods Reference
9. Name of location

S.No.	Time hours	Sound Pressure Level dB(A)			Leq
		L ₁₀	L ₅₀	L ₉₀	
1.	6-7 AM	38.9	40.2	37.6	40.2
2.	7-8 AM	41.1	42.6	38.4	42.7
3.	8-9 AM	42.4	44.6	40.8	44.6
4.	9-10 AM	43.6	44.5	41.8	44.6
5.	10-11 AM	45.3	54.2	41.2	54.5
6.	11-12 AM	54.7	56.8	52.3	56.9
7.	12-13 PM	46.1	47.6	44.7	47.6
8.	13-14 PM	46.8	48.0	45.0	48.1
9.	14-15 PM	47.0	49.6	46.0	49.6
10.	15-16 PM	44.2	46.3	42.5	46.3
11.	16-17 PM	45.5	47.6	43.2	47.7
12.	17-18 PM	45.5	47.6	42.6	47.7
13.	18-19 PM	45.6	47.3	43.5	47.4
14.	19-20 PM	44.0	45.6	42.3	45.6
15.	20-21 PM	42.0	44.6	39.5	44.7
16.	21-22 PM	41.1	43.6	38.6	43.7
		Leq Day (Leq = L ₅₀ + [(L ₁₀ – L ₉₀) ² /60])			47.0

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Page 1 of 2

Continue



TC-5941

Our Commitment.. Your Trust



Report No. 20220520002

Report Issue Date: - 02.06.2022

TEST REPORT

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number	:	PO No. 2016.1201/ 5100019025 Date 13.01.2016 AMENDMENT Dated: - 31.12.2020
3. Sample Identification	:	Ground Water
4. Condition of Sample	:	Sealed/OK
5. Date & Time of Sampling	:	19.05.2022/09:45AM
6. Sample received on	:	20.05.2022
7. Period of Analysis	:	20.05.2022 to 01.06.2022
8. Name of sample & Location	:	Kharwaria village (Ground water)
9. Method of Sampling	:	IS: 3025 (Pt 1) 1987

S. No.	Environment Condition		Unit	Results	Limits :- IS-10500:2012	
1.	Ambient Temperature		°C	32.1		
2.	Relative Humidity		%	29		
S. No.	Parameters	Test Method	Unit	Results	Acceptable	Permissible
Chemical Testing – Water – Ground Water						
1.	pH (at 27°C)	IS:3025(Pt11)1983, Reaff.2017	-	6.91	6.5 to 8.5	No Relaxation
2.	Conductivity (at 25°C)	IS:3025-1984(Pt14) Reaff.2019	ms	2.188	-	-
3.	Color	IS:3025(Pt4)1983, Reaff.2017	Hazen	<5	5	15
4.	Odour	IS 3025 (Pt5)1983 Reaff.2018	-	Agreeable	Agreeable	Agreeable
6.	Total Dissolve Solid	IS:3025(Pt16)1984, Reaff.2017	mg/L	1490	500	2000
7.	Total Suspended Solid	IS:3025(Pt17)1984, Reaff.2017	mg/L	14	-	-
8.	Total Hardness as CaCO ₃	IS:3025(Pt21)2009 Reaff 2019	mg/L	556	200	600
9.	Calcium as Ca ²⁺	IS:3025(Pt40)1991, Reaff.2019	mg/L	137.6	75	200
10.	Magnesium as Mg ²⁺	IS:3025(Pt46)1994 Reaff.2019	mg/L	50.88	30	100
11.	Alkalinity	IS:3025(Pt23)1986, Reaff.2019	mg/L	480	200	600
12.	Chlorides as Cl ⁻	IS:3025(Pt32)1988, Reaff.2019	mg/L	416	250	1000
13.	Oil & Grease	IS:3025(Pt39)1991, Reaff.2019	mg/L	BDL(<4)	0.5	No Relaxation
14.	Silica as SiO ₂	APHA 23 rd Edition2017, 4500-SI02 Page 4-175 to 177	mg/L	8.6	-	-
15.	Dissolve Oxygen	IS:3025(Pt38)1989, Reaff.2019	mg/L	6.5	-	-
16.	Residual Chlorine	IS:3025(Pt26)1986 Reaff 2019	mg/L	BDL(<0.01)	0.2	1
17.	B.O.D. 3 days @ 27°C	IS:3025(Pt44)1993, Reaff.2019	mg/L	BDL(<1)	-	-

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Report No. 20220808007

Report Issue Date: 26.08.2022

1. Name of Customer

TEST REPORT

: HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

Amendment Dated: - 31.12.2020

06.08.2022

NA

NA

08.08.2022

NA

IS: 9989- 1981 (Reaffirmed 2008)

Nr. Udaisagar

2. Purchase order Number

3. Date of Monitoring

4. Sample Identification

5. Condition of Sample

6. Sample Received On

7. Period of Analysis

8. Test Methods Reference

9. Name of location

S. No.	Time hours	Sound Pressure Level dB(A)			Leq
		L₁₀	L₅₀	L₉₀	
1.	22-23PM	38.6	39.6	36.8	39.7
2.	23-24PM	38.0	39.6	36.5	39.6
3.	0-1 AM	33.8	36.2	30.5	36.4
4.	1-2 AM	32.6	34.5	31.4	34.5
5.	2-3 AM	31.7	32.6	30.2	32.6
6.	3-4 AM	33.8	35.6	32.5	35.6
7.	4-5 AM	32.1	36.5	30.4	36.5
8.	5-6 AM	36.7	39.7	34.5	39.8
Leq Night (Leq = L₅₀ + [(L₁₀ - L₉₀)²/60])					36.8
Day-Night Sound Level (Ldn) = 10 log {1/24 [16 (10Lday/10) + 8 (10(Lnight + 10)/10)]}					
Ldn					47.0

CPCB Norms

S. No	Category of area	Day Time dB 6 A.M. to 10 P.M.	Night Time dB 10 P.M to 6 A.M.
1	Industrial Area	75.0	70.0
2	Commercial Area	65.0	55.0
3	Residential Area	55.0	45.0

Tested By

(Leena Sharma)
Asst.Chemist

Authorized Signatory

(Priyanka Yadav)

Asst. Chemist

Environmental & Chemical Laboratory

Wolkem India Limited

E-102, M.I.A., UDAIPUR (Rajasthan)

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End of Report

Registered & Corporate Office :

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CIN- U29299RJ1971PLC001379



TC-5941

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Report No. 20220520002

Report Issue Date: - 02.06.2022

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA PO No. 2016.1201/ 5100019025 Date 13.01.2016 AMENDMENT Dated: - 31.12.2020
2. Purchase order Number	:	Ground Water
3. Sample Identification	:	Sealed/OK
4. Condition of Sample	:	19.05.2022/09:45AM
5. Date & Time of Sampling	:	20.05.2022
6. Sample received on	:	20.05.2022 to 01.06.2022
7. Period of Analysis	:	Kharwaria village (Ground water)
8. Name of sample & Location	:	IS: 3025 (Pt 1) 1987
9. Method of Sampling	:	

S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012	
					Acceptable	Permissible
18.	Chemical Oxygen Demand	IS:3025(Pt58)2006 Reaff 2017	mg/L	BDL(<5)	-	-
19.	Copper as Cu	IS:3025(Pt42)1992, Reaff.2019	mg/L	BDL(<0.1)	0.05	1.5
20.	Fluoride as F ⁻	IS:3025(Pt60)2008 Reaff 2019	mg/L	0.50	1.0	1.5
21.	Phosphate	IS:3025 1988(Pt31) Reprint & Reaff 2019	mg/L	0.14	-	-
22.	Sulphate as SO ₄ ²⁻	IS:3025(Pt24)1986, Reaff.2019	mg/L	148.9	200	400
23.	Nitrate as NO ₃	IS:3025(Pt34-3-B)1988 Reaff 2019	mg/L	17.6	45	No Relaxation
24.	Zinc	IS 3025(P49)1994 RA 2019(a) AAS	mg/L	0.30	5	15
25.	Lead	IS 3025(P47)1994 RA 2019(a) AAS	mg/L	BDL(<0.01)	0.01	No Relaxation
26.	Potassium as K	APHA 23 rd Edition,2017 Part 3500-k (3-89 to 3-90)	mg/L	7.21	-	-
27.	Sodium as Na	APHA 23 rd Edition2017 Part 3500-Na(3-99 to 3-90)	mg/L	78.4	-	-
28.	Manganese as Mn	IS 3025 (P-59) 2006 Reaff.2017 /AAS	mg/L	BDL(<0.01)	0.1	0.3
29.	Iron as Fe	IS:3025(Pt53)2003, Reaff.2019	mg/L	0.16	0.3	No Relaxation

BDL-Below Detection Limit

Tested By

(Priyanka Yadav)
Asst.Chemist

Authorized Signatory

(Puran Singh)
Sr. Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.L.A., UDAIPUR (Rajasthan)

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Page 2 of 2
End of Report





Report No. 20220520003

Report Issue Date: - 02.06.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

AMENDMENT Dated: - 31.12.2020

2. Purchase order Number

Ground Water

3. Sample Identification

Sealed/OK

4. Condition of Sample

19.05.2022/09:55AM

5. Date & Time of Sampling

20.05.2022

6. Sample received on

20.05.2022 to 01.06.2022

7. Period of Analysis

Maton village (Ground water)

8. Name of sample & Location

IS: 3025 (Pt 1) 1987

9. Method of Sampling

S. No	Environment Condition	Test Method	Unit	Results	Limits :- IS-10500:2012	
					Acceptable	Permissible
1.	Ambient Temperature		°C	32.3		
2.	Relative Humidity		%	28		
S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012	
1.	pH (at 27°C)	IS:3025(Pt11)1983, Reaff.2017	-	7.36	6.5 to 8.5	No Relaxation
2.	Conductivity (at 25°C)	IS:3025-1984(Pt14) Reaff.2019	ms	1.927	-	-
3.	Color	IS:3025(Pt14)1983, Reaff.2017	Hazen	<5	5	15
4.	Odour	IS 3025 (Part- 5)198 Reaff.2018	-	Agreeable	Agreeable	Agreeable
6.	Total Dissolve Solid	IS:3025(Pt16)1984, Reaff.2017	mg/L	1324	500	2000
7.	Total Suspended Solid	IS:3025(Pt17)1984, Reaff.2017	mg/L	10	-	-
8.	Total Hardness as CaCO ₃	IS:3025(Pt21)2009 Reaff 2019	mg/L	532	200	600
9.	Calcium as Ca ²⁺	IS:3025(Pt40)1991, Reaff.2019	mg/L	99.2	75	200
10.	Magnesium as Mg ²⁺	IS:3025(Pt46)1994 Reaff.2019	mg/L	68.16	30	100
11.	Alkalinity	IS:3025(Pt23)1986, Reaff.2019	mg/L	420	200	600
12.	Chlorides as Cl ⁻	IS:3025(Pt32)1988, Reaff.2019	mg/L	336	250	1000
13.	Oil & Grease	IS:3025(Pt39)1991, Reaff.2019	mg/L	BDL(<4)	0.5	No Relaxation
14.	Silica as SiO ₂	APHA 23 rd Edition2017, 4500-SI02 Page 4-175 to 177	mg/L	8.2	-	-
15.	Dissolve Oxygen	IS:3025(Pt38)1989, Reaff.2019	mg/L	6.5	-	-
16.	Residual Chlorine	IS:3025(Pt26)1986 Reaff 2019	mg/L	BDL(<0.01)	0.2	1
17.	B.O.D. 3 days @ 27°C	IS:3025(Pt44)1993, Reaff.2019	mg/L	BDL(<1)	-	-

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Page 1 of 2

Continue





Report No. 20220520003

Report Issue Date: - 02.06.2022

TEST REPORT	
1. Name of Customer	: HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number	: PO No. 2016.1201/ 5100019025 Date 13.01.2016
3. Sample Identification	: AMENDMENT Dated: - 31.12.2020
4. Condition of Sample	: Ground Water
5. Date & Time of Sampling	: Sealed/OK
6. Sample received on	: 19.05.2022/09:55AM
7. Period of Analysis	: 20.05.2022
8. Name of sample & Location	: 20.05.2022 to 01.06.2022
9. Method of Sampling	: Maton village (Ground water)
IS: 3025 (Pt 1) 1987	

S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012	
					Acceptable	Permissible
18.	Chemical Oxygen Demand	IS:3025(Pt58)2006 Reaff 2017	mg/L	BDL(<5)	-	-
19.	Copper as Cu	IS:3025(Pt42)1992, Reaff.2019	mg/L	BDL(<0.1)	0.05	1.5
20.	Fluoride as F ⁻	IS:3025(Pt60)2008 Reaff 2019	mg/L	0.60	1.0	1.5
21.	Phosphate	IS:3025 1988(Pt31) Reprint & Reaff 2019	mg/L	0.30	-	-
22.	Sulphate as SO ₄ ²⁻	IS:3025(Pt24)1988, Reaff.2019	mg/L	220.4	200	400
23.	Nitrate as NO ₃ ⁻	IS:3025(Pt34-3-B)1988 Reaff 2019	mg/L	6.4	45	No Relaxation
24.	Zinc	IS 3025(P49)1994 RA 2019(a) AAS	mg/L	0.47	5	15
25.	Lead	IS 3025(P47)1994 RA 2019(a) AAS	mg/L	BDL(<0.01)	0.01	No Relaxation
26.	Potassium as K	APHA 23 rd Edition,2017 Part 3500-k (3-89 to 3-90)	mg/L	5.3	-	-
27.	Sodium as Na	APHA 23 rd Edition2017 Part 3500-Na(3-99 to 3-90)	mg/L	81.3	-	-
28.	Manganese as Mn	IS 3025 (P-59) 2006 Reaff.2017 /AAS	mg/L	BDL(<0.01)	0.1	0.3
29.	Iron as Fe	IS:3025(Pt53)2003, Reaff.2019	mg/L	0.13	0.3	No Relaxation

BDL-Below Detection Limit

Tested By

(Priyanka Yadav)
Asst.Chemist

Authorized Signatory

(Purab Singh)
Sr. Chemist

 Environmental & Chemical Laboratory
Wolkem India Limited
Note

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Registered & Corporate Office :

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 Phone : +91 294 2494600 - 02 E-mail : info@wolkem.com
 CIN- U29299RJ1971PLC001379


TC-5941

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Report No. 20220520004

Report Issue Date: - 02.06.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

AMENDMENT Dated: - 31.12.2020

2. Purchase order Number

Ground Water

3. Sample Identification

Sealed/OK

4. Condition of Sample

19.05.2022/10:15AM

5. Date & Time of Sampling

20.05.2022

6. Sample received on

20.05.2022 to 01.06.2022

7. Period of Analysis

Lakarwas village (Ground water)

8. Name of sample & Location

IS: 3025 (Pt 1) 1987

9. Method of Sampling

S. No	Environment Condition	Unit	Results
1.	Ambient Temperature	°C	32.8
2.	Relative Humidity	%	28

S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012	
					Acceptable	Permissible
Chemical Testing – Water- Ground Water						
1.	pH (at 27°C)	IS:3025(Pt11)1983, Reaff.2017	-	6.86	6.5 to 8.5	No Relaxation
2.	Conductivity (at 25°C)	IS:3025-1964(Pt14) Reaff.2019	ms	2.962	-	-
3.	Color	IS:3025(Pt4)1983, Reaff.2017	Hazen	<5	5	15
4.	Odour	IS 3025 (Part- 5)198 Reaff.2018	-	Agreeable	Agreeable	Agreeable
6.	Total Dissolve Solid	IS:3025(Pt16)1984, Reaff.2017	mg/L	1884	500	2000
7.	Total Suspended Solid	IS:3025(Pt17)1984, Reaff.2017	mg/L	12	-	-
8.	Total Hardness as CaCO ₃	IS:3025(Pt21)2009 Reaff. 2019	mg/L	584	200	600
9.	Calcium as Ca ²⁺	IS:3025(Pt40)1991, Reaff.2019	mg/L	179.2	75	200
10.	Magnesium as Mg ²⁺	IS:3025(Pt46)1994 Reaff.2019	mg/L	32.64	30	100
11.	Alkalinity	IS:3025(Pt23)1986, Reaff.2019	mg/L	540	200	600
12.	Chlorides as Cl ⁻	IS:3025(Pt32)1988, Reaff.2019	mg/L	610	250	1000
13.	Oil & Grease	IS:3025(Pt39)1991, Reaff.2019	mg/L	BDL(<4)	0.5	No Relaxation
14.	Silica as SiO ₂	APHA 23 rd Edition2017, 4500-SI02 Page 4-175 to 177	mg/L	8.4	-	-
15.	Dissolve Oxygen	IS:3025(Pt38)1989, Reaff.2019	mg/L	6.3	-	-
16.	Residual Chlorine	IS:3025(Pt26)1986 Reaff 2019	mg/L	BDL(<0.01)	0.2	1
17.	B.O.D. 3 days @ 27°C	IS:3025(Pt44)1993, Reaff.2019	mg/L	BDL(<1)	-	-

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Continue





Report No. 20220520004

Report Issue Date: - 02.06.2022

TEST REPORT	
1. Name of Customer	: HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number	: PO No. 2016.1201/ 5100019025 Date 13.01.2016 AMENDMENT Dated: - 31.12.2020
3. Sample Identification	: Ground Water
4. Condition of Sample	: Sealed/OK
5. Date & Time of Sampling	: 19.05.2022/10:15AM
6. Sample received on	: 20.05.2022
7. Period of Analysis	: 20.05.2022 to 01.06.2022
8. Name of sample & Location	: Lakarwas village (Ground water)
9. Method of Sampling	: IS: 3025 (Pt 1) 1987

S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012	
					Acceptable	Permissible
18.	Chemical Oxygen Demand	IS:3025(Pt58)2006 Reaff 2017	mg/L	BDL(<5)	-	-
19.	Copper as Cu	IS:3025(Pt42)1992, Reaff.2019	mg/L	BDL(<0.1)	0.05	1.5
20.	Fluoride as F ⁻	IS:3025(Pt60)2008 Reaff 2019	mg/L	0.70	1.0	1.5
21.	Phosphate	IS:3025 1988(Pt31) Reprint & Reaff 2019	mg/L	1.0	-	-
22.	Sulphate as SO ₄ ²⁻	IS:3025(Pt24)1986, Reaff.2019	mg/L	240.8	200	400
23.	Nitrate as NO ₃	IS:3025(Pt34-3-B)1988 Reaff 2019	mg/L	15.5	45	No Relaxation
24.	Zinc	IS 3025(P49)1994 RA 2019(a) AAS	mg/L	0.92	5	15
25.	Lead	IS 3025(P47)1994 RA 2019(a) AAS	mg/L	BDL(<0.01)	0.01	No Relaxation
26.	Potassium as K	APHA 23 rd Edition,2017 Part 3500-k (3-89 to 3-90)	mg/L	5.8	-	-
27.	Sodium as Na	APHA 23 rd Edition2017 Part 3500-Na(3-99 to 3-90)	mg/L	52.4	-	-
28.	Manganese as Mn	IS 3025 (P-59) 2006 Reaff.2017 /AAS	mg/L	BDL(<0.01)	0.1	0.3
29.	Iron as Fe	IS:3025(Pt53)2003, Reaff.2019	mg/L	0.15	0.3	No Relaxation

BDL-Below Detection Limit

Tested By

(Priyanka Yadav)
Asst.Chemist

Authorized Signatory

(Puran Singh)
Sr. Chemist,
Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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 Page 2 of 2
 End of Report



Report No. 20220520005

Report Issue Date: - 02.06.2022

1. Name of Customer

:

HINDUSTAN ZINC LIMITED
Rockphosphate Maton Mine
P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number

:

PO No. 2016.1201/ 5100019025 Date 13.01.2016
AMENDMENT Dated: - 31.12.2020
3. Sample Identification

:

Ground Water
4. Condition of Sample

:

Sealed/OK
5. Date & Time of Sampling

:

19.05.2022/10:35AM
6. Sample received on

:

20.05.2022
7. Period of Analysis

:

20.05.2022 to 01.06.2022
8. Name of sample & Location

:

Umarda village (Ground water)
9. Method of Sampling

:

IS: 3025 (Pt 1) 1987

S. No	Environment Condition	Unit	Results
1.	Ambient Temperature	°C	33.6
2.	Relative Humidity	%	28

S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012	
					Acceptable	Permissible
Chemical Testing – Water- Ground Water						
1.	pH (at 27°C)	IS:3025(Pt11)1983, Reaff.2017	-	6.71	6.5 to 8.5	No Relaxation
2.	Conductivity (at 25°C)	IS:3025-1964(Pt14) Reaff.2019	ms	1.298	-	-
3.	Color	IS:3025(Pt4)1983, Reaff.2017	Hazen	<5	5	15
4.	Odour	IS 3025 (Part- 5)198 Reaff.2018	-	Agreeable	Agreeable	Agreeable
6.	Total Dissolve Solid	IS:3025(Pt16)1984, Reaff.2017	mg/L	844	500	2000
7.	Total Suspended Solid	IS:3025(Pt17)1984, Reaff.2017	mg/L	10	-	-
8.	Total Hardness as CaCO ₃	IS:3025(Pt21)2009 Reaff 2019	mg/L	520	200	600
9.	Calcium as Ca ²⁺	IS:3025(Pt40)1991, Reaff.2019	mg/L	110.4	75	200
10.	Magnesium as Mg ²⁺	IS:3025(Pt46)1994 Reaff.2019	mg/L	58.6	30	100
11.	Alkalinity	IS:3025(Pt23)1986, Reaff.2019	mg/L	344	200	600
12.	Chlorides as Cl ⁻	IS:3025(Pt32)1988, Reaff.2019	mg/L	110	260	1000
13.	Oil & Grease	IS:3025(Pt39)1991, Reaff.2019	mg/L	BDL(<4)	0.5	No Relaxation
14.	Silica as SiO ₂	APHA 23 rd Edition2017, 4500-SiO ₂ Page 4-175 to 177	mg/L	8.4	-	-
15.	Dissolve Oxygen	IS:3025(Pt38)1989, Reaff.2019	mg/L	6.6	-	-
16.	Residual Chlorine	IS:3025(Pt26)1986 Reaff 2019	mg/L	BDL(<0.01)	0.2	1
17.	B.O.D. 3 days @ 27°C	IS:3025(Pt44)1993, Reaff.2019	mg/L	BDL(<1)	-	-

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CIN- U29299RJ1971PLC001379


TC-5941

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Report No. 20220520005

Report Issue Date: - 02.06.2022

TEST REPORT	
1. Name of Customer	: HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number	: PO No. 2016.1201/ 5100019025 Date 13.01.2016 AMENDMENT Dated: - 31.12.2020
3. Sample Identification	: Ground Water
4. Condition of Sample	: Sealed/OK
5. Date & Time of Sampling	: 19.05.2022/10:35AM
6. Sample received on	: 20.05.2022
7. Period of Analysis	: 20.05.2022 to 01.06.2022
8. Name of sample & Location	: Umreda village (Ground water)
9. Method of Sampling	: IS: 3025 (Pt 1) 1987

S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012	
					Acceptable	Permissible
18.	Chemical Oxygen Demand	IS:3025(Pt58)2006 Reaff 2017	mg/L	BDL(<5)	-	-
19.	Copper as Cu	IS:3025(Pt42)1992, Reaff.2019	mg/L	BDL(<0.1)	0.05	1.5
20.	Fluoride as F	IS:3025(Pt60)2008 Reaff 2019	mg/L	0.80	1.0	1.5
21.	Phosphate	IS:3025 1988(Pt31) Reprint & Reaff 2019	mg/L	0.17	-	-
22.	Sulphate as SO ₄ ²⁻	IS:3025(Pt24)1986, Reaff.2019	mg/L	70.2	200	400
23.	Nitrate as NO ₃	IS:3025(Pt34-3-B)1988 Reaff 2019	mg/L	12.8	45	No Relaxation
24.	Zinc	IS 3025(Pt49)1994 RA 2019(a) AAS	mg/L	0.25	5	15
25.	Lead	IS 3025(Pt47)1994 RA 2019(a) AAS	mg/L	BDL(<0.01)	0.01	No Relaxation
26.	Potassium as K	APHA 23 rd Edition,2017 Part 3500-k (3-89 to 3-90)	mg/L	6.2	-	-
27.	Sodium as Na	APHA 23 rd Edition2017 Part 3500-Na(3-99 to 3-90)	mg/L	28.2	-	-
28.	Manganese as Mn	IS 3025 (P-59) 2006 Reaff.2017 /AAS	mg/L	BDL(<0.01)	0.1	0.3
29.	Iron as Fe	IS:3025(Pt53)2003, Reaff.2019	mg/L	BDL(<0.1)	0.3	No Relaxation

BDL-Below Detection Limit

Tested By

(Priyanka Yadav)
Asst. Chemist

Authorized Signatory

(Puran Singh)
Sr. Chemist

 Environmental & Chemical Laboratory
Wolkem India Limited

Note

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 CIN- U29299RJ1971PLC001379





Laboratory : E- 102, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan (INDIA)



INDIA LIMITED

Phone : 91 294 2494600 to 02 E-mail : info.wcs@wolkem.com

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Report No. 20220520006

Report Issue Date: - 02.06.2022

1. Name of Customer

: HINDUSTAN ZINC LIMITED
Rockphosphate Maton Mine
P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
PO No. 2016.1201/ 5100019025 Date 13.01.2016
AMENDMENT Dated: - 31.12.2020

2. Purchase order Number

: Ground Water

3. Sample Identification

: Sealed/OK

4. Condition of Sample

: 19.05.2022/10:45AM

5. Date & Time of Sampling

: 20.05.2022

6. Sample received on

: 20.05.2022 to 01.06.2022

7. Period of Analysis

: Kanpur village (Ground water)

8. Name of sample & Location

: IS: 3025 (Pt 1) 1987

9. Method of Sampling

S. No	Environment Condition	Unit	Results
1.	Ambient Temperature	°C	33.8
2.	Relative Humidity	%	29

S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012	
					Acceptable	Permissible
Chemical Testing – Water- Ground Water						
1.	pH (at 27°C)	IS:3025(Pt11)1983, Reaff.2017	-	7.83	6.5 to 8.5	No Relaxation
2.	Conductivity (at 25°C)	IS:3025-1964(Pt14) Reaff.2019	ms	1.692	-	-
3.	Color	IS:3025(Pt4)1983, Reaff.2017	Hazen	<5	5	15
4.	Odour	IS 3025 (Part- 5)198 Reaff.2018	-	Agreeable	Agreeable	Agreeable
6.	Total Dissolve Solid	IS:3025(Pt16)1984, Reaff.2017	mg/L	1138	500	2000
7.	Total Suspended Solid	IS:3025(Pt17)1984, Reaff.2017	mg/L	6	-	-
8.	Total Hardness as CaCO ₃	IS:3025(Pt21)2009 Reaff 2019	mg/L	392	200	600
9.	Calcium as Ca ²⁺	IS:3025(Pt40)1991, Reaff.2019	mg/L	102.4	75	200
10.	Magnesium as Mg ²⁺	IS:3025(Pt46)1994 Reaff.2019	mg/L	30.7	30	100
11.	Alkalinity	IS:3025(Pt23)1988, Reaff.2019	mg/L	360	200	600
12.	Chlorides as Cl ⁻	IS:3025(Pt32)1988, Reaff.2019	mg/L	348	250	1000
13.	Oil & Grease	IS:3025(Pt39)1991, Reaff.2019	mg/L	BDL(<4)	0.5	No Relaxation
14.	Silica as SiO ₂	APHA 23 rd Edition2017, 4500-SiO ₂ Page 4-175 to 177	mg/L	8.0	-	-
15.	Dissolve Oxygen	IS:3025(Pt38)1989, Reaff.2019	mg/L	6.4	-	-
16.	Residual Chlorine	IS:3025(Pt26)1986 Reaff 2019	mg/L	BDL(<0.01)	0.2	1
17.	B.O.D. 3 days @ 27°C	IS:3025(Pt44)1993, Reaff.2019	mg/L	BDL(<1)	-	-

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TC-5941

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Report No. 20220520006

Report Issue Date: - 02.06.2022

TEST REPORT	
1. Name of Customer	: HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number	: PO No. 2016.1201/ 5100019025 Date 13.01.2016 AMENDMENT Dated: - 31.12.2020
3. Sample Identification	: Ground Water
4. Condition of Sample	: Sealed/OK
5. Date & Time of Sampling	: 19.05.2022/10:45AM
6. Sample received on	: 20.05.2022
7. Period of Analysis	: 20.05.2022 to 01.06.2022
8. Name of sample & Location	: Kanpur village (Ground water)
9. Method of Sampling	: IS: 3025 (Pt 1) 1987

S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012	
					Acceptable	Permissible
18.	Chemical Oxygen Demand	IS:3025(Pt58)2006 Reaff 2017	mg/L	BDL(<5)	-	-
19.	Copper as Cu	IS:3025(Pt42)1992, Reaff.2019	mg/L	BDL(<0.1)	0.05	1.5
20.	Fluoride as F ⁻	IS:3025(Pt80)2008 Reaff 2019	mg/L	0.60	1.0	1.5
21.	Phosphate	IS:3025 1988(Pt31) Reprint & Reaff 2019	mg/L	0.24	-	-
22.	Sulphate as SO ₄ ²⁻	IS:3025(Pt24)1986, Reaff.2019	mg/L	169.3	200	400
23.	Nitrate as NO ₃ ⁻	IS:3025(Pt34-3-B)1988 Reaff 2019	mg/L	17.6	45	No Relaxation
24.	Zinc	IS 3025(P49)1994 RA 2019(a) AAS	mg/L	1.20	5	15
25.	Lead	IS 3025(P47)1994 RA 2019(a) AAS	mg/L	BDL(<0.01)	0.01	No Relaxation
26.	Potassium as K	APHA 23 rd Edition,2017 Part 3500-k (3-89 to 3-90)	mg/L	5.4	-	-
27.	Sodium as Na	APHA 23 rd Edition2017 Part 3500-Na(3-99 to 3-90)	mg/L	19.8	-	-
28.	Manganese as Mn	IS 3025 (P-59) 2006 Reaff.2017 /AAS	mg/L	BDL(<0.01)	0.1	0.3
29.	Iron as Fe	IS:3025(Pt53)2003, Reaff.2019	mg/L	0.15	0.3	No Relaxation

BDL-Below Detection Limit

Tested By

 (Priyanka Yadav)
 Asst.Chemist

Authorized Signatory

 (Puran Singh)
 Sr. Chemist

 Environmental & Chemical Laboratory
Wolkem India Limited
Note

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 End of Report _____



1. Name of Customer
TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

AMENDMENT Dated: - 31.12.2020

2. Purchase order Number

Ground Water

3. Sample Identification

Sealed/OK

4. Condition of Sample

19.05.2022/10:55AM

5. Date & Time of Sampling

20.05.2022

6. Sample received on

20.05.2022 to 01.06.2022

7. Period of Analysis

Nakoli village (Ground water)

8. Name of sample & Location

IS: 3025 (Pt 1) 1987

9. Method of Sampling

S. No.	Environment Condition	Unit	Results
1.	Ambient Temperature	°C	34.3
2.	Relative Humidity	%	28

S. No.	Parameters	Test Method	Unit	Limits :- IS-10500:2012	
				Acceptable	Permissible
Chemical Testing – Water- Ground Water					
1.	pH (at 27°C)	IS:3025(Pt11)1983, Reaff.2017	-	6.87	6.5 to 8.5
2.	Conductivity (at 25°C)	IS:3025-1964(Pt14) Reaff.2019	ms	1.029	-
3.	Color	IS:3025(Pt4)1983, Reaff.2017	Hazen	<5	5
4.	Odour	IS 3025 (Part- 5)198 Reaff.2018	-	Agreeable	Agreeable
6.	Total Dissolve Solid	IS:3025(Pt16)1984, Reaff.2017	mg/L	754	500
7.	Total Suspended Solid	IS:3025(Pt17)1984, Reaff.2017	mg/L	8	-
8.	Total Hardness as CaCO ₃	IS:3025(Pt21)2009 Reaff.2019	mg/L	360	200
9.	Calcium as Ca ²⁺	IS:3025(Pt40)1991, Reaff.2019	mg/L	96	75
10.	Magnesium as Mg ²⁺	IS:3025(Pt46)1994 Reaff.2019	mg/L	28.8	30
11.	Alkalinity	IS:3025(Pt23)1986, Reaff.2019	mg/L	296	200
12.	Chlorides as Cl ⁻	IS:3025(Pt32)1988, Reaff.2019	mg/L	214	250
13.	Oil & Grease	IS:3025(Pt39)1991, Reaff.2019	mg/L	BDL(<4)	0.5
14.	Silica as SiO ₂	APHA 23 rd Edition2017, 4500-SiO ₂ Page 4-175 to 177	mg/L	6.4	-
15.	Dissolve Oxygen	IS:3025(Pt38)1989, Reaff.2019	mg/L	6.5	-
16.	Residual Chlorine	IS:3025(Pt26)1986 Reaff.2019	mg/L	BDL(<0.01)	0.2
17.	B.O.D. 3 days @ 27°C	IS:3025(Pt44)1993, Reaff.2019	mg/L	BDL(<1)	-

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Report No. 20220520007

Report Issue Date: - 02.06.2022

TEST REPORT

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number	:	PO No. 2016.1201/ 5100019025 Date 13.01.2016 AMENDMENT Dated: - 31.12.2020
3. Sample Identification	:	Ground Water
4. Condition of Sample	:	Sealed/OK
5. Date & Time of Sampling	:	19.05.2022/10:55AM
6. Sample received on	:	20.05.2022
7. Period of Analysis	:	20.05.2022 to 01.06.2022
8. Name of sample & Location	:	Nakoli village (Ground water)
9. Method of Sampling	:	IS: 3025 (Pt 1) 1987

S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012	
					Acceptable	Permissible
18.	Chemical Oxygen Demand	IS:3025(Pt58)2006 Reaff 2017	mg/L	BDL(<5)	-	-
19.	Copper as Cu	IS:3025(Pt42)1992, Reaff.2019	mg/L	BDL(<0.1)	0.05	1.5
20.	Fluoride as F	IS:3025(Pt60)2008 Reaff 2019	mg/L	0.70	1.0	1.5
21.	Phosphate	IS:3025 1988(Pt31) Reprint & Reaff 2019	mg/L	0.38	-	-
22.	Sulphate as SO ₄ ²⁻	IS:3025(Pt24)1986, Reaff.2019	mg/L	93.9	200	400
23.	Nitrate as NO ₃ ⁻	IS:3025(Pt34-3-B)1988 Reaff 2019	mg/L	5.4	45	No Relaxation
24.	Zinc	IS 3025(P49)1994 RA 2019(a) AAS	mg/L	0.30	5	15
25.	Lead	IS 3025(P47)1994 RA 2019(a) AAS	mg/L	BDL(<0.01)	0.01	No Relaxation
26.	Potassium as K	APHA 23 rd Edition,2017 Part 3500-k (3-89 to 3-90)	mg/L	4.5	-	-
27.	Sodium as Na	APHA 23 rd Edition2017 Part 3500-Na(3-99 to 3-90)	mg/L	43.8	-	-
28.	Manganese as Mn	IS 3025 (P-59) 2006 Reaff.2017 /AAS	mg/L	BDL(<0.01)	0.1	0.3
29.	Iron as Fe	IS:3025(Pt53)2003, Reaff.2019	mg/L	0.18	0.3	No Relaxation

BDL-Below Detection Limit

Tested By

 (Priyanka Yadav)
 Asst.Chemist

Authorized Signatory

 (Puran Singh)

Sr. Chemist

 Environmental & Chemical Laboratory
Wolkem India Limited

E-102, M.I.A., UDAIPUR (Rajasthan)

Note

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_____End of Report_____

Registered & Corporate Office :

"Wolkem House", E-101, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan-India

Phone : +91 294 2494600 - 02 E-mail : info@wolkem.com

CIN- U29299RJ1971PLC001379



TC-5941

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TEST REPORT	
1. Name of Customer	: HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number	: PO No. 2016.1201/ 5100019025 Date 13.01.2016 AMENDMENT Dated: - 31.12.2020
3. Sample Identification	: Ground Water
4. Condition of Sample	: Sealed/OK
5. Date & Time of Sampling	: 19.05.2022/11:25AM
6. Sample received on	: 20.05.2022
7. Period of Analysis	: 20.05.2022 to 01.06.2022
8. Name of sample & Location	: Mine Lease Area (Ground water)
9. Method of Sampling	: IS: 3025 (Pt 1) 1987

S. No	Environment Condition	Unit	Results
1.	Ambient Temperature	°C	34.6
2.	Relative Humidity	%	26

S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012	
					Acceptable	Permissible
Chemical Testing – Water- Ground Water						
1.	pH (at 27°C)	IS:3025(Pt11)1983, Reaff.2017	-	7.42	6.5 to 8.5	No Relaxation
2.	Conductivity (at 25°C)	IS:3025-1964(Pt14) Reaff.2019	µs	568.2	-	-
3.	Color	IS:3025(Pt4)1983, Reaff.2017	Hazen	<5	5	15
4.	Odour	IS 3025 (Part- 5)198 Reaff.2016	-	Agreeable	Agreeable	Agreeable
6.	Total Dissolve Solid	IS:3025(Pt16)1984, Reaff.2017	mg/L	404	500	2000
7.	Total Suspended Solid	IS:3025(Pt17)1984, Reaff.2017	mg/L	BDL(<5)	-	-
8.	Total Hardness as CaCO ₃	IS:3025(Pt21)2009 Reaff. 2019	mg/L	156	200	600
9.	Calcium as Ca ²⁺	IS:3025(Pt40)1991, Reaff.2019	mg/L	51.2	75	200
10.	Magnesium as Mg ²⁺	IS:3025(Pt46)1994 Reaff.2019	mg/L	6.7	30	100
11.	Alkalinity	IS:3025(Pt23)1986, Reaff.2019	mg/L	198	200	600
12.	Chlorides as Cl ⁻	IS:3025(Pt32)1988, Reaff.2019	mg/L	112	250	1000
13.	Oil & Grease	IS:3025(Pt39)1991, Reaff.2019	mg/L	BDL(<4)	0.5	No Relaxation
14.	Silica as SiO ₂	APHA 23 rd Edition2017, 4500-SiO ₂ Page 4-175 to 177	mg/L	5.6	-	-
15.	Dissolve Oxygen	IS:3025(Pt38)1989, Reaff.2018	mg/L	6.4	-	-
16.	Residual Chlorine	IS:3025(Pt26)1986 Reaff 2019	mg/L	BDL(<0.01)	0.2	1
17.	B.O.D. 3 days @ 27°C	IS:3025(Pt44)1993, Reaff.2019	mg/L	BDL(<1)	-	-

Note

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5. Any discrepancy in test results should be reported within 15 days.

Page 1 of 2

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TC-5941

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INDIA LIMITED

Laboratory : E- 102, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan (INDIA)

Phone : 91 294 2494600 to 02 E-mail : info.wcs@wolkem.com



www.wolkem.com

Report No. 20220520008

Report Issue Date: - 02.06.2022

TEST REPORT

1. Name of Customer : HINDUSTAN ZINC LIMITED
Rockphosphate Maton Mine
P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number : PO No. 2016.1201/ 5100019025 Date 13.01.2016
AMENDMENT Dated: - 31.12.2020
3. Sample Identification : Ground Water
4. Condition of Sample : Sealed/OK
5. Date & Time of Sampling : 19.05.2022/11:25AM
6. Sample received on : 20.05.2022
7. Period of Analysis : 20.05.2022 to 01.06.2022
8. Name of sample & Location : Mine Lease Area (Ground water)
9. Method of Sampling : IS: 3025 (Pt 1) 1987

S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012	
					Acceptable	Permissible
18.	Chemical Oxygen Demand	IS:3025(Pt58)2006 Reaff 2017	mg/L	BDL(<5)	-	-
19.	Copper as Cu	IS:3025(Pt42)1992, Reaff.2019	mg/L	BDL(<0.1)	0.05	1.5
20.	Fluoride as F	IS:3025(Pt60)2006 Reaff 2019	mg/L	0.20	1.0	1.5
21.	Phosphate	IS:3025 1988(Pl31) Reprint & Reaff 2019	mg/L	0.13	-	-
22.	Sulphate as SO ₄ ²⁻	IS:3025(Pt24)1986, Reaff.2019	mg/L	25.3	200	400
23.	Nitrate as NO ₃	IS:3025(Pt34-3-B)1988 Reaff 2019	mg/L	6.3	45.	No Relaxation
24.	Zinc	IS 3025(P49)1994 RA 2019(a) AAS	mg/L	0.24	5	15
25.	Lead	IS 3025(P47)1994 RA 2019(a) AAS	mg/L	BDL(<0.01)	0.01	No Relaxation
26.	Potassium as K	APHA 23 rd Edition, 2017 Part 3500-k (3-89 to 3-90)	mg/L	4.1	-	-
27.	Sodium as Na	APHA 23 rd Edition2017 Part 3500-Na(3-99 to 3-90)	mg/L	61.9	-	-
28.	Manganese as Mn	IS 3025 (P-59) 2006 Reaff.2017 /AAS	mg/L	BDL(<0.01)	0.1	0.3
29.	Iron as Fe	IS:3025(Pl53)2003, Reaff.2019	mg/L	BDL(<0.1)	0.3	No Relaxation

BDL-Below Detection Limit

Tested By

(Priyanka Yadav)
Asst.Chemist

Authorized Signatory

(Puran Singh)

Sr. Chemist

Environmental & Chemical Lab.

Wolkem India Limi

F-102, M.I.A, UDAIPUR (Rajastha

Note

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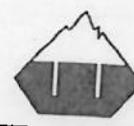
Page 2 of 2
End of Report

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CIN- U29299RJ1971PLC001379



TC-5941
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Report No. 20220520009

Report Issue Date: - 02.06.2022

1. Name of Customer
TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

AMENDMENT Dated: - 31.12.2020

2. Purchase order Number

Ground Water

3. Sample Identification

Sealed/OK

4. Condition of Sample

19.05.2022/11:55AM

5. Date & Time of Sampling

20.05.2022

6. Sample received on

20.05.2022 to 01.06.2022

7. Period of Analysis

Dhoonimata village (Ground water)

8. Name of sample & Location

IS: 3025 (Pt 1) 1987

9. Method of Sampling

S. No	Environment Condition	Unit	Results
1.	Ambient Temperature	°C	33.6
2.	Relative Humidity	%	29

S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012	
					Acceptable	Permissible
Chemical Testing – Water- Ground Water						
1.	pH (at 27°C)	IS:3025(Pt11)1983, Reaff.2017	-	6.93	6.5 to 8.5	No Relaxation
2.	Conductivity (at 25°C)	IS:3025-1984(Pt14) Reaff.2019	ms	1.592	-	-
3.	Color	IS:3025(Pt4)1983, Reaff.2017	Hazen	<5	5	15
4.	Odour	IS 3025 (Part- 5)198 Reaff.2018	-	Agreeable	Agreeable	Agreeable
6.	Total Dissolve Solid	IS:3025(Pt16)1984, Reaff.2017	mg/L	1038	500	2000
7.	Total Suspended Solid	IS:3025(Pt17)1984, Reaff.2017	mg/L	12	-	-
8.	Total Hardness as CaCO ₃	IS:3025(Pt21)2009 Reaff 2019	mg/L	408	200	600
9.	Calcium as Ca ²⁺	IS:3025(Pt40)1991, Reaff.2019	mg/L	81.6	75	200
10.	Magnesium as Mg ²⁺	IS:3025(Pt46)1994 Reaff.2019	mg/L	48.9	30	100
11.	Alkalinity	IS:3025(Pt23)1988, Reaff.2019	mg/L	280	200	600
12.	Chlorides as Cl ⁻	IS:3025(Pt32)1988, Reaff.2019	mg/L	286	250	1000
13.	Oil & Grease	IS:3025(Pt39)1991, Reaff.2019	mg/L	BDL(<4)	0.5	No Relaxation
14.	Silica as SiO ₂	APHA 23 rd Edition2017, 4500-SI02 Page 4-175 to 177	mg/L	8.0	-	-
15.	Dissolve Oxygen	IS:3025(Pt38)1989, Reaff.2019	mg/L	6.3	-	-
16.	Residual Chlorine	IS:3025(Pt26)1986 Reaff 2019	mg/L	BDL(<0.01)	0.2	1
17.	B.O.D. 3 days @ 27°C	IS:3025(Pt44)1993, Reaff.2019	mg/L	BDL(<1)	-	-

Note

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Page 1 of 2

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Report No. 20220520009

Report Issue Date: - 02.06.2022

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number	:	PO No. 2016.1201/ 5100019025 Date 13.01.2016
3. Sample Identification	:	AMENDMENT Dated: - 31.12.2020
4. Condition of Sample	:	Ground Water
5. Date & Time of Sampling	:	Sealed/OK
6. Sample received on	:	19.05.2022/11:55AM
7. Period of Analysis	:	20.05.2022
8. Name of sample & Location	:	20.05.2022 to 01.06.2022
9. Method of Sampling	:	Dhoonimata village (Ground water)
		IS: 3025 (Pt 1) 1987

S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012	
					Acceptable	Permissible
18.	Chemical Oxygen Demand	IS:3025(Pt58)2006 Reaff 2017	mg/L	BDL(<5)	-	-
19.	Copper as Cu	IS:3025(Pt42)1992, Reaff.2019	mg/L	BDL(<0.1)	0.05	1.5
20.	Fluoride as F ⁻	IS:3025(Pt60)2008 Reaff 2019	mg/L	0.70	1.0	1.5
21.	Phosphate	IS:3025 1988(Pt31) Reprint & Reaff 2019	mg/L	0.12	-	-
22.	Sulphate as SO ₄ ²⁻	IS:3025(Pt24)1986, Reaff.2019	mg/L	34.2	200	400
23.	Nitrate as NO ₃ ⁻	IS:3025(Pt34-3-B)1988 Reaff 2019	mg/L	15.7	45	No Relaxation
24.	Zinc	IS 3025(P49)1994 RA 2019(a) AAS	mg/L	0.32	5	15
25.	Lead	IS 3025(P47)1994 RA 2019(a) AAS	mg/L	BDL(<0.01)	0.01	No Relaxation
26.	Potassium as K	APHA 23 rd Edition,2017 Part 3500-k (3-89 to 3-90)	mg/L	7.13	-	-
27.	Sodium as Na	APHA 23 rd Edition,2017 Part 3500-Na(3-99 to 3-90)	mg/L	62.5	-	-
28.	Manganese as Mn	IS 3025 (P-59) 2006 Reaff.2017 /AAS	mg/L	BDL(<0.01)	0.1	0.3
29.	Iron as Fe	IS:3025(Pt53)2003, Reaff.2019	mg/L	0.14	0.3	No Relaxation

BDL-Below Detection Limit

Tested By

(Priyanka Yadav)
Asst.Chemist

Authorized Signatory

(Puran Singh)
Sr. Chemist

Environmental & Chemical Laboratory
Wolkem India Limited

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CIN- U29299RJ1971PLC001379



TC-5941

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Report No. 20220520010

Report Issue Date: - 02.06.2022

1. Name of Customer

TEST REPORT

: HINDUSTAN ZINC LIMITED
 Rockphosphate Maton Mine
 P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
 PO No. 2016.1201/ 5100019025 Date 13.01.2016
 AMENDMENT Dated: - 31.12.2020

2. Purchase order Number

: Surface Water

3. Sample Identification

: Sealed/OK

4. Condition of Sample

: 19.05.2022/11:15AM

5. Date & Time of Sampling

: 20.05.2022

6. Sample received on

: 20.05.2022 to 01.06.2022

7. Period of Analysis

: Bagdara Talav (Surface water)

8. Name of sample & Location

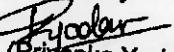
: IS: 3025 (Pt 1) 1987

9. Method of Sampling

S. No.	Environment Condition		Unit	Results
1.	Ambient Temperature		°C	33.8
2.	Relative Humidity		%	27
S. No.	Parameters	Test Method	Unit	Results
1.	pH (at 27°C)	IS:3025(Pt11)1983, Reaff.2017	-	7.58
2.	Total Dissolve Solid	IS:3025(Pt16)1984, Reaff.2017	mg/L	1278
3.	Total Suspended Solid	IS:3025(Pt17)1984, Reaff.2017	mg/L	16
4.	Total Hardness as CaCO ₃	IS:3025(Pt21)2009 Reaff 2019	mg/L	460
5.	Calcium as Ca ²⁺	IS:3025(Pt40)1991, Reaff.2019	mg/L	94.4
6.	Magnesium as Mg ²⁺	IS:3025(Pt46)1994 Reaff.2019	mg/L	53.8
7.	Alkalinity	IS:3025(Pt23)1986, Reaff.2019	mg/L	324
8.	B.O.D. 3 days @ 27°C	IS:3025(Pt44)1993, Reaff.2019	mg/L	3.2
9.	Phosphate	IS:3025 1988(Pt31) Reprint & Reaff 2019	mg/L	3.91
10.	Nitrate as NO ₃	IS:3025(Pt34-3-B)1988 Reaff 2019	mg/L	19.1
11.	Iron as Fe	IS:3025(Pt53)2003, Reaff.2019	mg/L	0.17

BDL-Below Detection Limit

Tested By


 (Priyanka Yadav)
 Asst.Chemist

Authorized Signatory


 (Puran Singh)
 Sr. Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A, UDAIPUR (Rajasthan)

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Page 1 of 1
 End of Report





Report No. 20220520010

Report Issue Date: - 02.06.2022

1. Name of Customer
TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

AMENDMENT Dated: - 31.12.2020

2. Purchase order Number

Surface Water

3. Sample Identification

Sealed/OK

4. Condition of Sample

19.05.2022/11:15AM

5. Date & Time of Sampling

20.05.2022

6. Sample received on

20.05.2022 to 01.06.2022

7. Period of Analysis

Bagdara Talav (Surface water)

8. Name of sample & Location

IS: 3025 (Pt 1) 1987

9. Method of Sampling

S. No	Environment Condition	Test Method	Unit	Results
1.	Ambient Temperature		°C	33.8
2.	Relative Humidity		%	27
S. No.	Parameters	Test Method	Unit.	Results
1.	Conductivity (at 25°C)	IS:3025-1964(Pt14) Reaff.2019	ms	1.698
2.	Color	IS:3025(Pt4)1983, Reaff.2017	Hazen	<5
3.	Odour	IS 3025 (Part- 5)198 Reaff.2018	-	Agreeable
4.	Taste	IS:3025-2012(Pt 7&8) Reaff.2015	-	Agreeable
5.	Chlorides as Cl ⁻	IS:3025(Pt32)1988, Reaff.2019	mg/L	272
6.	Oil & Grease	IS:3025(Pt39)1991, Reaff.2019	mg/L	BDL(<4)
7.	Silica as SiO ₂	APHA 23 rd Edition 2017, 4500-SiO ₂ Page 4-175 to 177	mg/L	8.5
8.	Dissolve Oxygen	IS:3025(Pt38)1989, Reaff.2019	mg/L	6.5
9.	Residual Chlorine	IS:3025(Pt26)1986 Reaff 2019	mg/L	BDL(<0.01)
10.	Chemical Oxygen Demand	IS:3025(Pt58)2006 Reaff 2017	mg/L	7.9
11.	Copper as Cu	IS:3025(Pt42)1992, Reaff.2019	mg/L	BDL(<0.1)
12.	Fluoride as F ⁻	IS:3025(Pt60)2008 Reaff 2019	mg/L	0.60
13.	Sulphate as SO ₄ ²⁻	IS:3025(Pt24)1986, Reaff.2019	mg/L	247.4
14.	Zinc	IS 3025(P49)1994 RA 2019(a) AAS	mg/L	1.6
15.	Lead	IS 3025(P47)1994 RA 2019(a) AAS	mg/L	BDL(<0.01)
16.	Potassium as K	APHA 23 rd Edition, 2017 Part 3500-k (3-99 to 3-90)	mg/L	9.69
17.	Sodium as Na	APHA 23 rd Edition 2017 Part 3500-Na(3-99 to 3-90)	mg/L	97.2
18.	Manganese as Mn	IS 3025 (P-59) 2006 Reaff.2017 /AAS	mg/L	BDL(<0.01)

BDL-Below Detection Limit

Tested By

 (Priyanka Yadav)
 Asst.Chemist

Authorized Signatory

 (Puran Singh)

Sr. Chemist

 Environmental & Chemical Laboratory
Wolkem India Limited
 UDAIPUR, M.R.A., UDAIPUR (Rajasthan)

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End of Report


 Certificate No.
 32024-A111



Laboratory : E- 102, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan (INDIA)



INDIA LIMITED

Phone : 91 294 2494600 to 02 E-mail : info.wcs@wolkem.com

www.wolkem.com

Report No. 20220804008

Report Issue Date: - 26.08.2022

TEST REPORT	
1. Name of Customer	:
	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number	:
	PO No. 2016.1201/ 5100019025 Date 13.01.2016
3. Sample Identification	:
4. Condition of Sample	:
5. Date & Time of Sampling	:
6. Sample received on	:
7. Period of Analysis	:
8. Name of sample & Location	:
9. Method of Sampling	:
	Mine Lease Area (Ground water) IS: 3025 (Pt 1) 1987

S. No	Environment Condition		Unit	Results		
1.	Ambient Temperature		°C	32.1		
2.	Relative Humidity		%	52		
S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012	
Chemical Testing – Water- Ground Water						
1.	pH (at 27°C)	IS:3025(Pt11)1983, Reaff.2017	-	7.36	6.5 to 8.5	No Relaxation
2.	Conductivity (at 25°C)	IS:3025-1984(Pt14) Reaff.2019	μs	536.4	-	-
3.	Color	IS:3025(Pt14)1983, Reaff.2017	Hazen	<5	5	15
4.	Odour	IS 3025 (Part- 5)198 Reaff.2018	-	Agreeable	Agreeable	Agreeable
5.	Total Dissolve Solid	IS:3025(Pt16)1984, Reaff.2017	mg/L	382	500	2000
6.	Total Suspended Solid	IS:3025(Pt17)1984, Reaff.2017	mg/L	BDL(<5)	-	-
7.	Total Hardness as CaCO ₃	IS:3025(Pt21)2009 Reaff 2019	mg/L	142	200	600
8.	Calcium as Ca ²⁺	IS:3025(Pt40)1991, Reaff.2019	mg/L	48.8	75	200
9.	Magnesium as Mg ²⁺	IS:3025(Pt46)1994 Reaff.2019	mg/L	4.8	30	100
10.	Alkalinity	IS:3025(Pt23)1988, Reaff.2019	mg/L	192	200	600
11.	Chlorides as Cl ⁻	IS:3025(Pt32)1988, Reaff.2019	mg/L	108	250	1000
12.	Oil & Grease	IS:3025(Pt39)1991, Reaff.2019	mg/L	BDL(<4)	0.5	No Relaxation
13.	Silica as SiO ₂	APHA 23 rd Edition2017, 4500-SI02 Page 4-175 to 177	mg/L	4.8	-	-
14.	Dissolve Oxygen	IS:3025(Pt38)1989, Reaff.2019	mg/L	8.2	-	-
15.	Residual Chlorine	IS:3025(Pt26)1988 Reaff 2019	mg/L	BDL(<0.01)	0.2	1
16.	B.O.D. 3 days @ 27°C	IS:3025(Pt44)1993, Reaff.2019	mg/L	BDL(<1)	-	-

Note

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CIN- U29299RJ1971PLC001379



TC-5941

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Report No. 20220804008

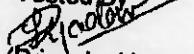
Report Issue Date: - 26.08.2022

1. Name of Customer : HINDUSTAN ZINC LIMITED
Rockphosphate Maton Mine
P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
PO No. 2016.1201/ 5100019025 Date 13.01.2016
AMENDMENT Dated: - 31.12.2020
2. Purchase order Number :
3. Sample Identification : Ground Water
4. Condition of Sample : Sealed/Ok
5. Date & Time of Sampling : 04.08.2022/12:40PM
6. Sample received on : 04.08.2022
7. Period of Analysis : 04.08.2022 to 18.08.2022
8. Name of sample & Location : Mine Lease Area (Ground water)
9. Method of Sampling : IS: 3025 (Pt 1) 1987

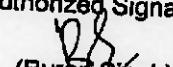
S. No.	Parameters	Test Method	Unit	Results		Limits :- IS-10500:2012 Acceptable Permissible
Chemical Testing – Water- Ground Water						
17.	Chemical Oxygen Demand	IS:3025(Pt58)2006 Reaff 2017	mg/L	BDL(<5)	-	-
18.	Copper as Cu	IS:3025(Pt42)1992, Reaff.2019	mg/L	BDL(<0.1)	0.05	1.5
19.	Fluoride as F	IS:3025(Pt80)2008 Reaff 2019	mg/L	0.40	1.0	1.5
20.	Phosphate	IS:3025 1988(Pt31) Reprint & Reaff 2019	mg/L	0.11	-	-
21.	Sulphate as SO ₄	IS:3025(Pt24)1988, Reaff.2019	mg/L	24.8	200	400
22.	Nitrate as NO ₃	IS:3025(Pt34-3-B)1988 Reaff 2019	mg/L	5.4	45	No Relaxation
23.	Zinc	IS 3025(P49)1994 RA 2019(a) AAS	mg/L	0.22	5	15
24.	Lead	IS 3025(P47)1994 RA 2019(a) AAS	mg/L	BDL(<0.01)	0.01	No Relaxation
25.	Potassium as K	APHA 23 rd Edition,2017 Part 3500-K (3-89 to 3-90)	mg/L	3.7	-	-
26.	Sodium as Na	APHA 23 rd Edition2017 Part 3500-Na(3-99 to 3-90)	mg/L	52.4	-	-
27.	Manganese as Mn	IS 3025 (P-59) 2006 Reaff.2017 /AAS	mg/L	BDL(<0.01)	0.1	0.3
28.	Iron as Fe	IS:3025(Pt53)2003, Reaff.2019	mg/L	BDL(<0.1)	0.3	No Relaxation

BDL-Below Detection Limit

Tested By


(Priyanka Yadav)
Asst.Chemist

Authorized Signatory


(Puran Singh)
Sr. Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

Note

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Page 2 of 2
End of Report





INDIA LIMITED

Laboratory : E- 102, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan (INDIA)
Phone : 91 294 2494600 to 02 E-mail : info.wcs@wolkem.com

www.wolkem.com

Report No. 20220805002

Report Issue Date: - 26.08.2022

1. Name of Customer : HINDUSTAN ZINC LIMITED
 Rockphosphate Maton Mine
 P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
 PO No. 2016.1201/ 5100019025 Date 13.01.2016
 AMENDMENT Dated: - 31.12.2020

2. Purchase order Number :

3. Sample Identification :

4. Condition of Sample :

5. Date & Time of Sampling :

6. Sample received on :

7. Period of Analysis :

8. Name of sample & Location :

9. Method of Sampling :

S. No	Environment Condition		Unit	Results		Limits :- IS-10500:2012	
				°C	%		
S. No.	Parameters	Test Method	Unit	Results		Acceptable	Permissible
Chemical Testing – Water- Ground Water							
1.	pH (at 27°C)	IS:3025(Pt11)1983, Reaff.2017	-	6.66	6.5 to 8.5	No Relaxation	
2.	Conductivity (at 25°C)	IS:3025-1964(Pt14) Reaff.2019	mS	2.106			
3.	Color	IS:3025(Pt4)1983, Reaff.2017	Hazen	<5	5	15	
4.	Odour	IS 3025 (Part- 5)198 Reaff.2018					
5.	Total Dissolve Solid	IS:3025(Pt16)1984, Reaff.2017	mg/L	1342	500	2000	Agreeable
6.	Total Suspended Solid	IS:3025(Pt17)1984, Reaff.2017	mg/L	18			
7.	Total Hardness as CaCO ₃	IS:3025(Pt21)2009 Reaff 2019	mg/L	532	200	800	
8.	Calcium as Ca ²⁺	IS:3025(Pt40)1991, Reaff.2019	mg/L	131.2	75	200	
9.	Magnesium as Mg ²⁺	IS:3025(Pt46)1994 Reaff.2019	mg/L	48.9	30	100	
10.	Alkalinity	IS:3025(Pt23)1986, Reaff.2019	mg/L	446	200	800	
11.	Chlorides as Cl ⁻	IS:3025(Pt32)1988, Reaff.2019	mg/L	374	250	1000	
12.	Oil & Grease	IS:3025(Pt39)1991, Reaff.2019	mg/L	BDL(<4)	0.5	No Relaxation	
13.	Silica as SiO ₂	APHA 23 rd Edition2017, 4600-SI02 Page 4-175 to 177	mg/L	7.5			
14.	Dissolve Oxygen	IS:3025(Pt38)1989, Reaff.2019	mg/L	6.7			
15.	Residual Chlorine	IS:3025(Pt26)1986 Reaff 2019	mg/L	BDL(<0.01)	0.2	1	
16.	B.O.D. 3 days @ 27°C	IS:3025(Pt44)1993, Reaff.2019	mg/L	BDL(<1)			

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 CIN- U29299RJ1971PLC001379



TC-5941

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Report No. 20220805002

Report Issue Date: - 26.08.2022

TEST REPORT	
1. Name of Customer	: HINDUSTAN ZINC LIMITED
	Rockphosphate Maton Mine
2. Purchase order Number	: P.O. Maton, Distt. Udaipur (Rajasthan), INDIA PO No. 2016.1201/ 5100019025 Date 13.01.2016
3. Sample Identification	: AMENDMENT Dated: - 31.12.2020
4. Condition of Sample	: Ground Water
5. Date & Time of Sampling	: Sealed/Ok
6. Sample received on	: 05.08.2022/12:20PM
7. Period of Analysis	: 05.08.2022
8. Name of sample & Location	: Kharwaria village (Ground water)
9. Method of Sampling	: IS: 3025 (Pt 1) 1987

S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10600:2012	
					Acceptable	Permissible
Chemical Testing – Water- Ground Water						
17.	Chemical Oxygen Demand	IS:3025(Pt58)2006 Reaff 2017	mg/L	BDL(<5)	-	-
18.	Copper as Cu	IS:3025(Pt42)1992, Reaff.2019	mg/L	BDL(<0.1)	0.05	1.5
19.	Fluoride as F	IS:3025(Pt80)2008 Reaff 2019	mg/L	0.40	1.0	1.5
20.	Phosphate	IS:3025 1988(Pt31) Reprint & Reaff 2019	mg/L	0.12	-	-
21.	Sulphate as SO ₄ ²⁻	IS:3025(Pt24)1986, Reaff.2019	mg/L	117	200	400
22.	Nitrate as NO ₃	IS:3025(Pt34-3-B)1988 Reaff.2019	mg/L	12.9	45	No Relaxation
23.	Zinc	IS 3025(P49)1994 RA 2019(a) AAS	mg/L	0.20	5	15
24.	Lead	IS 3025(P47)1994 RA 2019(a) AAS	mg/L	BDL(<0.01)	0.01	No Relaxation
25.	Potassium as K	APHA 23 rd Edition, 2017 Part 3500-k (3-89 to 3-90)	mg/L	6.1	-	-
26.	Sodium as Na	APHA 23 rd Edition 2017 Part 3500-Na(3-99 to 3-90)	mg/L	52.4	-	-
27.	Manganese as Mn	IS 3025 (P-59) 2006 Reaff.2017 /AAS	mg/L	BDL(<0.01)	0.1	0.3
28.	Iron as Fe	IS:3025(Pt53)2003, Reaff.2019	mg/L	0.13	0.3	No Relaxation

BDL-Below Detection Limit

Tested By

(Priyanka Yadav)
Asst.Chemist

Authorized Signatory

(Puran Singh)
Sr. Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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End of Report

Registered & Corporate Office :

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TC-5941
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Report No. 20220805003

Report Issue Date: - 26.08.2022

1. Name of Customer

TEST REPORT
HINDUSTAN ZINC LIMITED
 Rockphosphate Maton Mine

2. Purchase order Number

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
 PO No. 2016.1201/ 5100019025 Date 13.01.2016
 AMENDMENT Dated: - 31.12.2020

3. Sample Identification

Ground Water

4. Condition of Sample

Sealed/Ok

5. Date & Time of Sampling

05.08.2022/12:50PM

6. Sample received on

05.08.2022

7. Period of Analysis

05.08.2022 to 18.08.2022

8. Name of sample & Location

Maton village (Ground water)

9. Method of Sampling

IS: 3025 (Pt 1) 1987

S. No.	Environment Condition		Unit	Results		
1.	Ambient Temperature		°C	32.2		
2.	Relative Humidity		%	55		
S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012	
					Acceptable	Permissible
Chemical Testing – Water- Ground Water						
1.	pH (at 27°C)	IS:3025(Pt11)1983, Reaff.2017	-	7.41	6.5 to 8.5	No Relaxation
2.	Conductivity (at 25°C)	IS:3025-1984(Pt14) Reaff.2019	ms	1.861	-	-
3.	Color	IS:3025(Pt4)1983, Reaff.2017	Hazen	<5	5	15
4.	Odour	IS:3025 (Part- 5)198 Reaff.2018	-	Agreeable	Agreeable	Agreeable
5.	Total Dissolve Solid	IS:3025(Pt16)1984, Reaff.2017	mg/L	1232	500	2000
6.	Total Suspended Solid	IS:3025(Pt17)1984, Reaff.2017	mg/L	14	-	-
7.	Total Hardness as CaCO ₃	IS:3025(Pt21)1989 Reaff 2019	mg/L	486	200	600
8.	Calcium as Ca ²⁺	IS:3025(Pt40)1991, Reaff.2019	mg/L	94.4	75	200
9.	Magnesium as Mg ²⁺	IS:3025(Pt46)1984 Reaff.2019	mg/L	60	30	100
10.	Alkalinity	IS:3025(Pt23)1988, Reaff.2019	mg/L	382	200	600
11.	Chlorides as Cl ⁻	IS:3025(Pt32)1988, Reaff.2019	mg/L	286	250	1000
12.	Oil & Grease	IS:3025(Pt39)1991, Reaff.2019	mg/L	BDL(<4)	0.5	No Relaxation
13.	Silica as SiO ₂	APHA 23 rd Edition2017, 4600-SiO ₂ Page 4-175 to 177	mg/L	6.0	-	-
14.	Dissolve Oxygen	IS:3025(Pt38)1989, Reaff.2019	mg/L	8.8	-	-
15.	Residual Chlorine	IS:3025(Pt26)1986 Reaff 2019	mg/L	BDL(<0.01)	0.2	1
16.	B.O.D. 3 days @ 27°C	IS:3025(Pt44)1993, Reaff.2019	mg/L	BDL(<1)	-	-

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Report No. 20220805003

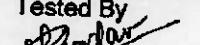
Report Issue Date: - 26.08.2022

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA PO No. 2016.1201/ 5100019025 Date 13.01.2016 AMENDMENT Dated: - 31.12.2020
2. Purchase order Number	:	
3. Sample Identification	:	Ground Water
4. Condition of Sample	:	Sealed/Ok
5. Date & Time of Sampling	:	05.08.2022/12:50PM
6. Sample received on	:	05.08.2022
7. Period of Analysis	:	05.08.2022 to 18.08.2022
8. Name of sample & Location	:	Maton village (Ground water)
9. Method of Sampling	:	IS: 3025 (Pt 1) 1987

S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012
Acceptable Permissible					
Chemical Testing – Water- Ground Water					
17.	Chemical Oxygen Demand	IS:3025(Pt58)2006 Reaff 2017	mg/L	BDL(<5)	-
18.	Copper as Cu	IS:3025(Pt42)1992, Reaff.2019	mg/L	BDL(<0.1)	0.05 1.5
19.	Fluoride as F ⁻	IS:3025(Pt60)2008 Reaff.2019	mg/L	0.60	1.0 1.5
20.	Phosphate	IS:3025 1988(Pt31) Reprint & Reaff 2019	mg/L	0.30	-
21.	Sulphate as SO ₄ ²⁻	IS:3025(Pt24)1986, Reaff.2019	mg/L	218	200 400
22.	Nitrate as NO ₃ ⁻	IS:3025(Pt34-3-B)1988 Reaff.2019	mg/L	8.6	45
23.	Zinc	IS 3025(Pt49)1994 RA 2019(a) AAS	mg/L	0.41	5 15
24.	Lead	IS 3025(Pt47)1994 RA 2019(a) AAS	mg/L	BDL(<0.01)	0.01
25.	Potassium as K	APHA 23 rd Edition,2017 Part 3500-k (3.89 to 3.90)	mg/L	4.6	-
26.	Sodium as Na	APHA 23 rd Edition2017 Part 3500-Na(3.98 to 3.80)	mg/L	62.7	-
27.	Manganese as Mn	IS 3025 (P-59) 2006 Reaff.2017 /AAS	mg/L	BDL(<0.01)	0.1 0.3
28.	Iron as Fe	IS:3025(Pt53)2003, Reaff.2019	mg/L	0.11	0.3

BDL-Below Detection Limit

Tested By


 (Priyanka Yadav)

Asst.Chemist

Authorized Signatory


 (Puran Singh)
 Sr. Chemist

 Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

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 Page 2 of 2
 End of Report




Report No. 20220805004

Report Issue Date: - 26.08.2022

1. Name of Customer
TEST REPORT
HINDUSTAN ZINC LIMITED
Rockphosphate Maton Mine
P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
PO No. 2016.1201/ 5100019025 Date 13.01.2016
AMENDMENT Dated: - 31.12.2020
2. Purchase order Number
Ground Water
3. Sample Identification
Sealed/Ok
4. Condition of Sample
05.08.2022/01:30PM
5. Date & Time of Sampling
05.08.2022
6. Sample received on
05.08.2022 to 18.08.2022
7. Period of Analysis
Lakarwas village (Ground water)
8. Name of sample & Location
IS: 3025 (Pt 1) 1987
9. Method of Sampling

S. No	Environment Condition		Test Method	Unit	Results	
					Unit	Results
1.	Ambient Temperature			°C		32.8
2.	Relative Humidity			%		55
Chemical Testing – Water- Ground Water						
1.	pH (at 27°C)	IS:3025(Pt11)1983, Reaff.2017	-	6.92	6.5 to 8.5	No Relaxation
2.	Conductivity (at 25°C)	IS:3025-1984(Pt14) Reaff.2019	ms	2.851	-	-
3.	Color	IS:3025(Pt4)1983, Reaff.2017	Hazen	<5	5	15
4.	Odour	IS 3025 (Part- 5)198 Reaff.2018		Agreeable	Agreeable	Agreeable
5.	Total Dissolve Solid	IS:3025(Pt16)1984, Reaff.2017	mg/L	1736	500	2000
6.	Total Suspended Solid	IS:3025(Pt17)1984, Reaff.2017	mg/L	18	-	-
7.	Total Hardness as CaCO ₃	IS:3025(Pt21)2009 Reaff 2019	mg/L	536	200	800
8.	Calcium as Ca ²⁺	IS:3025(Pt10)1991, Reaff.2019	mg/L	169.6	75	200
9.	Magnesium as Mg ²⁺	IS:3025(Pt46)1994 Reaff.2019	mg/L	26.9	30	100
10.	Alkalinity	IS:3025(Pt23)1986, Reaff.2019	mg/L	392	200	600
11.	Chlorides as Cl ⁻	IS:3025(Pt32)1988, Reaff.2019	mg/L	576	250	1000
12.	Oil & Grease	IS:3025(Pt39)1991, Reaff.2019	mg/L	BDL(<4)	0.5	No Relaxation
13.	Silica as SiO ₂	APHA 23 rd Edition2017, 4500-SiO ₂ Page 4-175 to 177	mg/L	6.0	-	-
14.	Dissolve Oxygen	IS:3025(Pt38)1989, Reaff.2019	mg/L	6.1	-	-
15.	Residual Chlorine	IS:3025(Pt26)1986 Reaff 2019	mg/L	BDL(<0.01)	0.2	1
16.	B.O.D. 3 days @ 27°C	IS:3025(Pt44)1993, Reaff.2019	mg/L	BDL(<1)	-	-

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Report No. 20220805004

Report Issue Date: - 26.08.2022

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number	:	PO No. 2016.1201/ 5100019025 Date 13.01.2016
3. Sample Identification	:	AMENDMENT Dated: - 31.12.2020
4. Condition of Sample	:	Ground Water
5. Date & Time of Sampling	:	Sealed/Ok
6. Sample received on	:	05.08.2022/01:30PM
7. Period of Analysis	:	05.08.2022
8. Name of sample & Location	:	05.08.2022 to 18.08.2022
9. Method of Sampling	:	Lakarwas village (Ground water)
	:	IS: 3025 (Pt 1) 1987

S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012	
					Acceptable	Permissible
Chemical Testing – Water- Ground Water						
17.	Chemical Oxygen Demand	IS:3025(Pt58)2006 Reaff 2017	mg/L	BDL(<5)	-	-
18.	Copper as Cu	IS:3025(Pt42)1992, Reaff.2019	mg/L	BDL(<0.1)	0.05	1.5
19.	Fluoride as F	IS:3025(Pt60)2008 Reaff 2019	mg/L	0.60	1.0	1.5
20.	Phosphate	IS:3025 1988(Pt31) Reprint & Reaff 2019	mg/L	1.0	-	-
21.	Sulphate as SO ₄ ²⁻	IS:3025(Pt24)1986, Reaff.2019	mg/L	209	200	400
22.	Nitrate as NO ₃ ⁻	IS:3025(Pt34-3-B)1988 Reaff 2019	mg/L	12.7	45	No Relaxation
23.	Zinc	IS 3025(P49)1994 RA 2019(a) AAS	mg/L	0.84	5	15
24.	Lead	IS 3025(P47)1994 RA 2019(a) AAS	mg/L	BDL(<0.01)	0.01	No Relaxation
25.	Potassium as K	APHA 23 rd Edition,2017 Part 3500-k (3-89 to 3-90)	mg/L	4.6	-	-
26.	Sodium as Na	APHA 23 rd Edition 2017 Part 3500-Na(3-99 to 3-90)	mg/L	36.4	-	-
27.	Manganese as Mn	IS 3025 (P-59) 2006 Reaff.2017 /AAS	mg/L	BDL(<0.01)	0.1	0.3
28.	Iron as Fe	IS:3025(Pt53)2003, Reaff.2019	mg/L	0.12	0.3	No Relaxation

BDL-Below Detection Limit

Tested By

(Priyanka Yadav)

Asst.Chemist

Authorized Signatory

(Pawan Singh)
Sr. Chemist

Environmental & Chemical Laboratory

Wolkem India Limited

E-102, M.I.A., UDAIPUR (Rajasthan)

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TC-5941

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Report No. 20220805005

Report Issue Date: - 26.08.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

AMENDMENT Dated: - 31.12.2020

2. Purchase order Number

Ground Water

3. Sample Identification

Sealed/Ok

4. Condition of Sample

05.08.2022/01:50PM

5. Date & Time of Sampling

05.08.2022

6. Sample received on

05.08.2022 to 18.08.2022

7. Period of Analysis

Umrada village (Ground water)

8. Name of sample & Location

IS: 3025 (Pt 1) 1987

9. Method of Sampling

S. No	Environment Condition		Unit	Results	
1.	Ambient Temperature		°C	33.1	
2.	Relative Humidity		%	56	
S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012 Acceptable Permissible
Chemical Testing – Water- Ground Water					
1.	pH (at 27°C)	IS:3025(Pt11)1983, Reaff.2017	-	6.67	8.5 to 8.5
2.	Conductivity (at 25°C)	IS:3025-1964(Pt14) Reaff.2019	ms	1.202	No Relaxation
3.	Color	IS:3025(Pt4)1983, Reaff.2017	Hazen	<5	5
4.	Odour	IS 3025 (Part- 5)198 Reaff.2018	-	Agreeable	Agreeable
5.	Total Dissolve Solid	IS:3025(Pt16)1984, Reaff.2017	mg/L	772	Agreeable
6.	Total Suspended Solid	IS:3025(Pt17)1984, Reaff.2017	mg/L	14	2000
7.	Total Hardness as CaCO ₃	IS:3025(Pt21)2009 Reaff 2019	mg/L	480	600
8.	Calcium as Ca ²⁺	IS:3025(Pt40)1981, Reaff.2019	mg/L	100.8	75
9.	Magnesium as Mg ²⁺	IS:3025(Pt46)1994 Reaff.2019	mg/L	49.9	200
10.	Alkalinity	IS:3025(Pt23)1986, Reaff.2019	mg/L	326	100
11.	Chlorides as Cl ⁻	IS:3025(Pt32)1988, Reaff.2019	mg/L	98	200
12.	Oil & Grease	IS:3025(Pt39)1991, Reaff.2019	mg/L	250	600
13.	Silica as SiO ₂	APHA 23 rd Edition2017, 4500-SiO ₂ Page 4-175 to 177	mg/L	BDL(<4)	1000
14.	Dissolve Oxygen	IS:3025(Pt38)1989, Reaff.2019	mg/L	6.5	No Relaxation
15.	Residual Chlorine	IS:3025(Pt26)1986 Reaff 2019	mg/L	6.7	-
16.	B.O.D. 3 days @ 27°C	IS:3025(Pt44)1983, Reaff.2019	mg/L	BDL(<0.01)	0.2
			mg/L	BDL(<1)	1

Note

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Page 1 of 2

Continue



TC-5941

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Report No. 20220805005

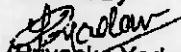
Report Issue Date: - 26.08.2022

1. Name of Customer : HINDUSTAN ZINC LIMITED
 Rockphosphate Maton Mine
 P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number : PO No. 2016.1201/ 5100019025 Date 13.01.2016
3. Sample Identification : AMENDMENT Dated: - 31.12.2020
4. Condition of Sample : Ground Water
5. Date & Time of Sampling : Sealed/Ok
6. Sample received on : 05.08.2022/01:50PM
7. Period of Analysis : 05.08.2022
8. Name of sample & Location : Umarda village (Ground water)
9. Method of Sampling : IS: 3025 (Pt 1) 1987

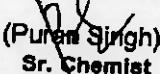
S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012
					Acceptable Permissible
Chemical Testing – Water- Ground Water					
17.	Chemical Oxygen Demand	IS:3025(Pt58)2006 Reaff 2017	mg/L	BDL(<5)	-
18.	Copper as Cu	IS:3025(Pt42)1992, Reaff.2019	mg/L	BDL(<0.1)	0.05
19.	Fluoride as F	IS:3025(Pt60)2008 Reaff 2019	mg/L	0.60	1.0
20.	Phosphate	IS:3025 1988(Pt31) Reprint & Reaff 2019	mg/L	0.16	1.5
21.	Sulphate as SO ₄ ²⁻	IS:3025(Pt24)1988, Reaff.2019	mg/L	52	200
22.	Nitrate as NO ₃	IS:3025(Pt34-3-B)1988 Reaff 2019	mg/L	10.3	45
23.	Zinc	IS 3025(P49)1994 RA 2018(a) AAS	mg/L	0.21	5
24.	Lead	IS 3025(P47)1994 RA 2018(a) AAS	mg/L	BDL(<0.01)	0.01
25.	Potassium as K	APHA 23 rd Edition,2017 Part 3500-k (3-69 to 3-90)	mg/L	5.3	-
26.	Sodium as Na	APHA 23 rd Edition2017 Part 3500-Na(3-99 to 3-90)	mg/L	20.4	-
27.	Manganese as Mn	IS 3025 (P-59) 2006 Reaff.2017 /AAS	mg/L	BDL(<0.01)	0.1
28.	Iron as Fe	IS:3025(Pt53)2003, Reaff.2019	mg/L	BDL(<0.1)	0.3

BDL-Below Detection Limit

Tested By


 (Priyanka Yadav)
 Asst.Chemist

Authorized Signatory


 (Puran Singh)
 Sr. Chemist

 Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 2 of 2

End of Report



Report No. 20220805006

Report Issue Date: - 26.08.2022

1. Name of Customer	:	TEST REPORT HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA PO No. 2016.1201/ 5100019025 Date 13.01.2016
2. Purchase order Number	:	AMENDMENT Dated: - 31.12.2020
3. Sample Identification	:	Ground Water
4. Condition of Sample	:	Sealed/Ok
5. Date & Time of Sampling	:	05.08.2022/02:05PM
6. Sample received on	:	05.08.2022
7. Period of Analysis	:	05.08.2022 to 18.08.2022
8. Name of sample & Location	:	Kanpur village (Ground water)
9. Method of Sampling	:	IS: 3025 (Pt 1) 1987

S. No	Environment Condition	Test Method	Unit	Results	
				°C	%
1.	Ambient Temperature			34.3	
2.	Relative Humidity			58	
S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10600:2012 Acceptable Permissible
Chemical Testing – Water- Ground Water					
1.	pH (at 27°C)	IS:3025(Pt11)1983, Reaff.2017	-	7.62	6.5 to 8.5
2.	Conductivity (at 25°C)	IS:3025-1984(Pt14) Reaff.2019	ms	1.538	No Relaxation
3.	Color	IS:3025(Pt4)1983, Reaff.2017	Hazen	<5	5 15
4.	Odour	IS 3025 (Part- 5)198 Reaff.2018	-	Agreeable	Agreeable Agreeable
5.	Total Dissolve Solid	IS:3025(Pt18)1984, Reaff.2017	mg/L	1052	500 2000
6.	Total Suspended Solid	IS:3025(Pt17)1984, Reaff.2017	mg/L	10	-
7.	Total Hardness as CaCO ₃	IS:3025(Pt21)2009 Reaff 2019	mg/L	350	200 600
8.	Calcium as Ca ²⁺	IS:3025(Pt140)1991, Reaff.2019	mg/L	100	75 200
9.	Magnesium as Mg ²⁺	IS:3025(Pt146)1994 Reaff.2019	mg/L	24	30 100
10.	Alkalinity	IS:3025(Pt23)1986, Reaff.2019	mg/L	342	200 600
11.	Chlorides as Cl ⁻	IS:3025(Pt32)1988, Reaff.2019	mg/L	320	250 1000
12.	Oil & Grease	IS:3025(Pt39)1991, Reaff.2019	mg/L	BDL(<4)	0.5 No Relaxation
13.	Silica as SiO ₂	APHA 23 rd Edition2017, 4500-SiO ₂ Page 4-175 to 177	mg/L	6.8	-
14.	Dissolve Oxygen	IS:3025(Pt38)1989, Reaff.2019	mg/L	6.2	-
15.	Residual Chlorine	IS:3025(Pt26)1986 Reaff 2019	mg/L	BDL(<0.01)	0.2 1
16.	B.O.D. 3 days @ 27°C	IS:3025(Pt44)1993, Reaff.2019	mg/L	BDL(<1)	-

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Report No. 20220805006

Report Issue Date: - 26.08.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

AMENDMENT Dated: - 31.12.2020

2. Purchase order Number

Ground Water

3. Sample Identification

Sealed/Ok

4. Condition of Sample

05.08.2022/02:05PM

5. Date & Time of Sampling

05.08.2022

6. Sample received on

05.08.2022 to 18.08.2022

7. Period of Analysis

Kanpur village (Ground water)

8. Name of sample & Location

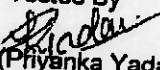
IS: 3025 (Pt 1) 1987

9. Method of Sampling

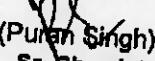
S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012	
					Acceptable	Permissible
Chemical Testing – Water- Ground Water						
17.	Chemical Oxygen Demand	IS:3025(Pt58)2008 Reaff 2017	mg/L	BDL(<5)	-	-
18.	Copper as Cu	IS:3025(Pt42)1992, Reaff.2019	mg/L	BDL(<0.1)	0.05	1.5
19.	Fluoride as F	IS:3025(Pt80)2008 Reaff 2019	mg/L	0.50	1.0	1.5
20.	Phosphate	IS:3025 1988(Pt31) Reprint & Reaff 2019	mg/L	0.21	-	-
21.	Sulphate as SO ₄ ⁻	IS:3025(Pt24)1988, Reaff.2019	mg/L	156	200	400
22.	Nitrate as NO ₃	IS:3025(Pt34-3-B)1988 Reaff 2019	mg/L	13.5	45	No Relaxation
23.	Zinc	IS:3025(P49)1994 RA 2019(a) AAS	mg/L	1.1	5	15
24.	Lead	IS:3025(P47)1994 RA 2019(a) AAS	mg/L	BDL(<0.01)	0.01	No Relaxation
25.	Potassium as K	APHA 23 rd Edition, 2017 Part 3500-k (3-89 to 3-90)	mg/L	4.8	-	-
26.	Sodium as Na	APHA 23 rd Edition 2017 Part 3500-Na(3-99 to 3-90)	mg/L	17.6	-	-
27.	Manganese as Mn	IS:3025 (P-59) 2008 Reaff.2017 /AAS	mg/L	BDL(<0.01)	0.1	0.3
28.	Iron as Fe	IS:3025(Pt53)2003, Reaff.2019	mg/L	0.13	0.3	No Relaxation

BDL-Below Detection Limit

Tested By


 Priyanka Yadav
 Asst.Chemist

Authorized Signatory


 Puran Singh
 Sr. Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

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End of Report



Report No. 20220805007

Report Issue Date: - 26.08.2022

1. Name of Customer	:	TEST REPORT HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA PO No. 2016.1201/ 5100019025 Date 13.01.2016 AMENDMENT Dated: - 31.12.2020
2. Purchase order Number	:	
3. Sample Identification	:	Ground Water
4. Condition of Sample	:	Sealed/Ok
5. Date & Time of Sampling	:	05.08.2022/03:00PM
6. Sample received on	:	05.08.2022
7. Period of Analysis	:	05.08.2022 to 18.08.2022
8. Name of sample & Location	:	Nakoli village (Ground water)
9. Method of Sampling	:	IS: 3025 (Pt 1) 1987

S. No	Environment Condition		Unit	Results	
1.	Ambient Temperature		°C	33.4	
2.	Relative Humidity		%	56	
Chemical Testing – Water- Ground Water					
1.	pH (at 27°C)	IS:3025(Pt11)1983, Reaff.2017	-	6.89	6.5 to 8.5
2.	Conductivity (at 25°C)	IS:3025-1984(Pt14) Reaff.2019	ms	1.012	No Relaxation
3.	Color	IS:3025(Pt4)1983, Reaff.2017	Hazen	<5	5
4.	Odour	IS 3025 (Part- 5)198 Reaff.2018		Agreeable	Agreeable
5.	Total Dissolve Solid	IS:3025(Pt16)1984, Reaff.2017	mg/L	682	Agreeable
6.	Total Suspended Solid	IS:3025(Pt17)1984, Reaff.2017	mg/L	12	2000
7.	Total Hardness as CaCO ₃	IS:3025(Pt21)2009 Reaff 2019	mg/L	336	600
8.	Calcium as Ca ²⁺	IS:3025(Pt40)1991, Reaff.2019	mg/L	93.6	200
9.	Magnesium as Mg ²⁺	IS:3025(Pt46)1994 Reaff.2019	mg/L	24.4	100
10.	Alkalinity	IS:3025(Pt23)1986, Reaff.2019	mg/L	272	600
11.	Chlorides as Cl ⁻	IS:3025(Pt32)1988, Reaff.2019	mg/L	204	200
12.	Oil & Grease	IS:3025(Pt39)1991, Reaff.2019	mg/L	BDL(<4)	1000
13.	Silica as SiO ₂	APHA 23 rd Edition2017, 4500-SiO ₂ Page 4-175 to 177	mg/L	5.8	No Relaxation
14.	Dissolve Oxygen	IS:3025(Pt38)1989, Reaff.2019	mg/L	6.2	
15.	Residual Chlorine	IS:3025(Pt26)1986 Reaff 2019	mg/L	BDL(<0.01)	0.2
16.	B.O.D. 3 days @ 27°C	IS:3025(Pt44)1993, Reaff.2019	mg/L	BDL(<1)	1

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Page 1 of 2

Continue





Report No. 20220805007

Report Issue Date: - 26.08.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

AMENDMENT Dated: - 31.12.2020

2. Purchase order Number

Ground Water

3. Sample Identification

Sealed/Ok

4. Condition of Sample

05.08.2022/03:00PM

5. Date & Time of Sampling

05.08.2022

6. Sample received on

05.08.2022 to 18.08.2022

7. Period of Analysis

Nakoli village (Ground water)

8. Name of sample & Location

IS: 3025 (Pt 1) 1987

9. Method of Sampling

S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012
					Acceptable Permissible
Chemical Testing – Water- Ground Water					
17.	Chemical Oxygen Demand	IS:3025(Pt58)2006 Reaff 2017	mg/L	BDL(<5)	-
18.	Copper as Cu	IS:3025(Pt42)1992, Reaff.2019	mg/L	BDL(<0.1)	0.05 1.5
19.	Fluoride as F ⁻	IS:3025(Pt60)2008 Reaff 2019	mg/L	0.50	1.0 1.5
20.	Phosphate	IS:3025 1988(Pt31) Reprint & Reaff 2019	mg/L	0.29	-
21.	Sulphate as SO ₄ ²⁻	IS:3025(Pt24)1986, Reaff.2019	mg/L	60.4	200 400
22.	Nitrate as NO ₃ ⁻	IS:3025(Pt34-3-B)1988 Reaff 2019	mg/L	7.1	45 No Relaxation
23.	Zinc	IS 3025(P49)1994 RA 2019(a) AAS	mg/L	0.12	5 15
24.	Lead	IS 3025(P47)1994 RA 2019(a) AAS	mg/L	BDL(<0.01)	0.01 No Relaxation
25.	Potassium as K	APHA 23 rd Edition, 2017 Part 3500-k (3-89 to 3-90)	mg/L	3.9	-
26.	Sodium as Na	APHA 23 rd Edition 2017 Part 3500-Na(3-99 to 3-90)	mg/L	37.4	-
27.	Manganese as Mn	IS 3025 (P-59) 2008 Reaff.2017 /AAS	mg/L	BDL(<0.01)	0.1 0.3
28.	Iron as Fe	IS:3025(Pt53)2003, Reaff.2019	mg/L	0.15	0.3 No Relaxation

BDL-Below Detection Limit

Tested By

(Priyanka Yadav)
Asst.Chemist

Authorized Signatory

(Puran Singh)
Sr. Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
E-102, M.I.A., UDAIPUR (Rajasthan)

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Page 2 of 2

End of Report





INDIA LIMITED

Laboratory : E- 102, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan (INDIA)

Phone : 91 294 2494600 to 02 E-mail : info.wcs@wolkem.com



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Report No. 20220805008

Report Issue Date: - 26.08.2022

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number	:	PO No. 2016.1201/ 5100019025 Date 13.01.2016
3. Sample Identification	:	AMENDMENT Dated: - 31.12.2020
4. Condition of Sample	:	Ground Water
5. Date & Time of Sampling	:	Sealed/Ok
6. Sample received on	:	05.08.2022/03:40PM
7. Period of Analysis	:	05.08.2022
8. Name of sample & Location	:	05.08.2022 to 18.08.2022
9. Method of Sampling	:	Dhoonimata village (Ground water)
		IS: 3025 (Pt 1) 1987

S. No	Environment Condition		Unit	Results	
				%	%
S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10600:2012
				Acceptable	Permissible
Chemical Testing – Water- Ground Water					
1.	pH (at 27°C)	IS:3025(Pt11)1983, Reaff.2017	-	6.97	6.5 to 8.5
2.	Conductivity (at 25°C)	IS:3025-1984(Pt14) Reaff.2019	ms	1.462	No Relaxation
3.	Color	IS:3025(Pt4)1983, Reaff.2017	Hazen	<5	-
4.	Odour	IS 3025 (Part- 5)198 Reaff.2018	-	Agreeable	Agreeable
5.	Total Dissolve Solid	IS:3025(Pt18)1984, Reaff.2017	mg/L	968	500
6.	Total Suspended Solid	IS:3025(Pt17)1984, Reaff.2017	mg/L	10	2000
7.	Total Hardness as CaCO ₃	IS:3025(Pt21)2009 Reaff 2019	mg/L	386	200
8.	Calcium as Ca ²⁺	IS:3025(Pt40)1991, Reaff.2019	mg/L	78..4	800
9.	Magnesium as Mg ²⁺	IS:3025(Pt46)1994 Reaff.2019	mg/L	45.6	200
10.	Alkalinity	IS:3025(Pt23)1986, Reaff.2019	mg/L	272	100
11.	Chlorides as Cl ⁻	IS:3025(Pt32)1988, Reaff.2019	mg/L	274	600
12.	Oil & Grease	IS:3025(Pt39)1991, Reaff.2019	mg/L	BDL(<4)	1000
13.	Silica as SiO ₂	APHA 23 rd Edition2017, 4500-SiO ₂ Page 4-175 to 177	mg/L	6.4	No Relaxation
14.	Dissolve Oxygen	IS:3025(Pt38)1989, Reaff.2019	mg/L	6.1	-
15.	Residual Chlorine	IS:3025(Pt26)1986 Reaff 2019	mg/L	BDL(<0.01)	0.2
16.	B.O.D. 3 days @ 27°C	IS:3025(Pt44)1993, Reaff.2019	mg/L	BDL(<1)	1

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 Phone : +91 294 2494600 - 02 E-mail : info@wolkem.com
 CIN- U29299RJ1971PLC001379



TC-5941

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Report No. 20220805008

Report Issue Date: - 26.08.2022

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA
2. Purchase order Number	:	PO No. 2016.1201/ 5100019025 Date 13.01.2016
3. Sample Identification	:	AMENDMENT Dated: - 31.12.2020
4. Condition of Sample	:	Ground Water
5. Date & Time of Sampling	:	Sealed/Ok
6. Sample received on	:	05.08.2022/03:40PM
7. Period of Analysis	:	05.08.2022
8. Name of sample & Location	:	05.08.2022 to 18.08.2022
9. Method of Sampling	:	Dhoonimata village (Ground water)
		IS: 3025 (Pt 1) 1987

S. No.	Parameters	Test Method	Unit	Results	Limits :- IS-10500:2012	
					Acceptable	Permissible
Chemical Testing – Water- Ground Water						
17.	Chemical Oxygen Demand	IS:3025(Pt58)2006 Reaff 2017	mg/L	BDL(<5)	-	-
18.	Copper as Cu	IS:3025(Pt42)1992, Reaff.2019	mg/L	BDL(<0.1)	0.05	1.5
19.	Fluoride as F	IS:3025(Pt60)2008 Reaff 2019	mg/L	0.50	1.0	1.5
20.	Phosphate	IS:3025 1988(Pt31) Reprint & Reaff 2019	mg/L	0.11	-	-
21.	Sulphate as SO ₄ ²⁻	IS:3025(Pt24)1986, Reaff.2019	mg/L	32.2	200	400
22.	Nitrate as NO ₃	IS:3025(Pt34-3-B)1988 Reaff 2019	mg/L	11.4	45	No Relaxation
23.	Zinc	IS 3025(P49)1994 RA 2019(a) AAS	mg/L	0.27	5	15
24.	Lead	IS 3025(P47)1994 RA 2019(a) AAS	mg/L	BDL(<0.01)	0.01	No Relaxation
25.	Potassium as K	APHA 23 rd Edition,2017 Part 3500-k (3-89 to 3-90)	mg/L	8.4	-	-
26.	Sodium as Na	APHA 23 rd Edition2017 Part 3500-Na(3-99 to 3-90)	mg/L	54.2	-	-
27.	Manganese as Mn	IS 3025 (P-59) 2006 Reaff.2017 /AAS	mg/L	BDL(<0.01)	0.1	0.3
28.	Iron as Fe	IS:3025(Pt53)2003, Reaff.2019	mg/L	0.12	0.3	No Relaxation

BDL-Below Detection Limit

Tested By

 (Priyanka Yadav)
 Asst.Chemist

Authorized Signatory

 (Puran Singh)
 Sr. Chemist

 Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A., UDAIPUR (Rajasthan)

Note

- Complaint Register is available in lab / Email ID lab.office@wolkem.com
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Page 2 of 2

End of Report

Registered & Corporate Office :

 "Wolkem House", E-101, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan-India
 Phone : +91 294 2494600 - 02 E-mail : info@wolkem.com
 CIN- U29299RJ1971PLC001379


TC-5941

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Report No. 20220520010

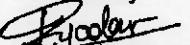
Report Issue Date: - 02.06.2022

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA PO No. 2016.1201/ 5100019025 Date 13.01.2016 AMENDMENT Dated: - 31.12.2020
2. Purchase order Number	:	
3. Sample Identification	:	Surface Water
4. Condition of Sample	:	Sealed/OK
5. Date & Time of Sampling	:	19.05.2022/11:15AM
6. Sample received on	:	20.05.2022
7. Period of Analysis	:	20.05.2022 to 01.06.2022
8. Name of sample & Location	:	Bagdara Talav (Surface water)
9. Method of Sampling	:	IS: 3025 (Pt 1) 1987

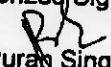
S. No.	Environment Condition	Unit	Results
1.	Ambient Temperature	°C	33.8
2.	Relative Humidity	%	27
S. No.	Parameters	Test Method	Unit
	Chemical Testing – Water- Surface Water		
1.	pH (at 27°C)	IS:3025(Pt11)1983, Reaff.2017	-
2.	Total Dissolve Solid	IS:3025(Pt16)1984, Reaff.2017	mg/L
3.	Total Suspended Solid	IS:3025(Pt17)1984, Reaff.2017	mg/L
4.	Total Hardness as CaCO ₃	IS:3025(Pt21)2009 Reaff 2019	mg/L
5.	Calcium as Ca ²⁺	IS:3025(Pt40)1991, Reaff.2019	mg/L
6.	Magnesium as Mg ²⁺	IS:3025(Pt46)1994 Reaff.2019	mg/L
7.	Alkalinity	IS:3025(Pt23)1986, Reaff.2019	mg/L
8.	B.O.D. 3 days @ 27°C	IS:3025(Pt44)1993, Reaff.2019	mg/L
9.	Phosphate	IS:3025 1988(Pt31) Reprint & Reaff 2019	mg/L
10.	Nitrate as NO ₃	IS:3025(Pt34-3-B)1988 Reaff 2019	mg/L
11.	Iron as Fe	IS:3025(Pt53)2003, Reaff.2019	mg/L

BDL-Below Detection Limit

Tested By


 (Priyanka Yadav)
 Asst. Chemist

Authorized Signatory


 (Puran Singh)
 Sr. Chemist

Environmental & Chemical Laboratory
Wolkem India Limited
 E-102, M.I.A, UDAIPUR (Rajasthan)

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Page 1 of 1
 End of Report





INDIA LIMITED

Laboratory : E- 102, Mewar Industrial Area, Madri, Udaipur - 313003, Rajasthan (INDIA)

Phone : 91 294 2494600 to 02 E-mail : info.wcs@wolkem.com



www.wolkem.com

Report No. 20220520010

Report Issue Date: - 02.06.2022

1. Name of Customer

TEST REPORT

HINDUSTAN ZINC LIMITED

Rockphosphate Maton Mine

P.O. Maton, Distt. Udaipur (Rajasthan), INDIA

PO No. 2016.1201/ 5100019025 Date 13.01.2016

AMENDMENT Dated: - 31.12.2020

2. Purchase order Number

Surface Water

3. Sample Identification

Sealed/OK

4. Condition of Sample

19.05.2022/11:15AM

5. Date & Time of Sampling

20.05.2022

6. Sample received on

20.05.2022 to 01.06.2022

7. Period of Analysis

Bagdara Talav (Surface water)

8. Name of sample & Location

IS: 3025 (Pt 1) 1987

9. Method of Sampling

S. No	Environment Condition	Unit	Results
1.	Ambient Temperature	°C	33.8
2.	Relative Humidity	%	27

S. No.	Parameters	Test Method	Unit.	Results
Chemical Testing - Water- Ground Water				
1.	Conductivity (at 25°C)	IS:3025-1964(Pt14) Reaff.2019	ms	1.698
2.	Color	IS:3025(Pt4)1983, Reaff.2017	Hazen	<5
3.	Odour	IS 3025 (Part- 5)198 Reaff.2018	-	Agreeable
4.	Taste	IS:3025-2012(Pt 7&8) Reaff.2015	-	Agreeable
5.	Chlorides as Cl ⁻	IS:3025(Pt32)1988, Reaff.2019	mg/L	272
6.	Oil & Grease	IS:3025(Pt39)1991, Reaff.2019	mg/L	BDL(<4)
7.	Silica as SiO ₂	APHA 23 rd Edition2017, 4500-SiO ₂ Page 4-175 to 177	mg/L	9.5
8.	Dissolve Oxygen	IS:3025(Pt38)1989, Reaff.2019	mg/L	6.5
9.	Residual Chlorine	IS:3025(Pt26)1986 Reaff 2019	mg/L	BDL(<0.01)
10.	Chemical Oxygen Demand	IS:3025(Pt58)2006 Reaff 2017	mg/L	7.9
11.	Copper as Cu	IS:3025(Pt42)1992, Reaff.2019	mg/L	BDL(<0.1)
12.	Fluoride as F ⁻	IS:3025(Pt60)2008 Reaff 2019	mg/L	0.60
13.	Sulphate as SO ₄ ²⁻	IS:3025(Pt24)1986, Reaff.2019	mg/L	247.4
14.	Zinc	IS 3025(P49)1994 RA 2019(a) AAS	mg/L	1.6
15.	Lead	IS 3025(P47)1994 RA 2019(a) AAS	mg/L	BDL(<0.01)
16.	Potassium as K	APHA 23 rd Edition,2017 Part 3500-k (3-89 to 3-90)	mg/L	8.69
17.	Sodium as Na	APHA 23 rd Edition2017 Part 3500-Na(3-99 to 3-90)	mg/L	97.2
18.	Manganese as Mn	IS 3025 (P-59) 2006 Reaff.2017 /AAS	mg/L	BDL(<0.01)

BDL-Below Detection Limit

Tested By

(Priyanka Yadav)
Asst.Chemist

Authorized Signatory

(Puran Singh)

Sr. Chemist

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 CIN: U29299RJ1971PLC001379

Certified No.
32024-A111

Our Commitment.. Your Trust

Report No. 20220805009/A

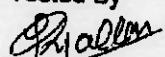
Report Issue Date: - 26.08.2022

1. Name of Customer	:	HINDUSTAN ZINC LIMITED Rockphosphate Maton Mine P.O. Maton, Distt. Udaipur (Rajasthan), INDIA PO No. 2016.1201/ 5100019025 Date 13.01.2016 AMENDMENT Dated: - 31.12.2020
2. Purchase order Number	:	
3. Sample Identification	:	Surface Water
4. Condition of Sample	:	Sealed/Ok
5. Date & Time of Sampling	:	05.08.2022/04:10PM
6. Sample received on	:	05.08.2022
7. Period of Analysis	:	05.08.2022 to 18.08.2022
8. Name of sample & Location	:	Bagdara Talav (Surface water)
9. Method of Sampling	:	IS: 3025 (Pt 1) 1987

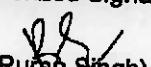
S. No	Environment Condition		Unit	Results
1.	Ambient Temperature		°C	34.2
2.	Relative Humidity		%	59
S. No.	Parameters	Test Method	Unit	Results
Chemical Testing – Water- Surface Water				
1.	pH (at 27°C)	IS:3025(Pt11)1983, Reaff.2017	-	7.63
2.	Total Dissolve Solid	IS:3025(Pt16)1984, Reaff.2017	mg/L	1224
3.	Total Suspended Solid	IS:3025(Pt17)1984, Reaff.2017	mg/L	20
4.	Total Hardness as CaCO ₃	IS:3025(Pt21)2009 Reaff 2019	mg/L	424
5.	Calcium as Ca ²⁺	IS:3025(Pt40)1991, Reaff.2019	mg/L	91.2
6.	Magnesium as Mg ²⁺	IS:3025(Pt46)1994 Reaff.2019	mg/L	47.0
7.	Alkalinity	IS:3025(Pt23)1986, Reaff.2019	mg/L	318
8.	B.O.D. 3 days @ 27°C	IS:3025(Pt44)1993, Reaff.2019	mg/L	2.9
9.	Phosphate	IS:3025 1988(Pt31) Reprint & Reaff 2019	mg/L	3.4
10.	Nitrate as NO ₃	IS:3025(Pt34-3-B)1988 Reaff 2019	mg/L	13.6
11.	Iron as Fe	IS:3025(Pt53)2003, Reaff.2019	mg/L	0.14

BDL-Below Detection Limit

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End of Report



ANNEX 12

Mr. A. P. Bhagat, IAS
District Collector, Dehradoon

नियमित प्रतिवेदन

दिनांक: 27.11.2010

प्रतिवेदन का नाम:

प्रतिवेदन का नाम:

संघर्ष-विवाद

प्रतिवेदन का विवरण:
प्रतिवेदन का विवरण:
प्रतिवेदन का विवरण:
प्रतिवेदन का विवरण:

vadodara

(C)

शहर में आज

Date: 27.11

न लिखा

सुनवे पाठापाट

लाइ आगे लगावाल
सारिदार

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Survey report-E9 TR1

**FLORA WITHIN THE STUDY AREA OF MATON MINES OF MS
HINDUSTAN ZINC LIMITED**

S.No		Local Name	Buffer Zone 10 KM
1	TREES	ROWJI	ACACIA LEUCOPHYLOEA
2		BABUL	ACACIA SENEGAL
3		ARDUSA	AILANTHUS EXCELSA ROXB
4		DHOKADA	ANOGEISSUS PENDUIA ENG
5		NEEM	AZADIRACHTA INDICA
6		KHAJURA	BUTEA MONOSPERMA
7		BORDI	ZIPHUS MAUNTIANA
8		VILAYATI BABUL	PROSOPIS JULIFLORA
9		PEEPAL	FICUS RELIGIOSA
10		BARGAD	FICUS BENGALENSIS
11		BEL	AEGLE MARMELOS
12		GONDA	CORDIA MIXA
13		KABITA	DISPYROS MONTANA
14		KACHNAR	BAUHINIA RACEMOSA
15		MU	TAMARINDUS INDICA
16		KIKAR	PITHOCOLOUBIUM DULCI
17		AAM	MANGIFERA INDICA
18		DESI BABUL	ACACIA NILOTICA
19		BANSI	DENDROCALAMUS STRICTUS
20		SISAM	DALEBERGIA SISSO
21		CHAMPA	PLUMARIA RUBRA
22		KHAJUR	PHOENIX ACULIS
1	SHRUBS	AKDN	CALOTROPIS PROCERA
2		ANDHUAHARA	ACHYRANTHES ASPERA
3		AWAL	CASSIA AURICULATA
4		DHATURA	DHATURA METAL
5		CHANIBOR	ZEPHYRUS NUMMULARIA
6		THOR	EUPHORBIA NIVULIS
1	GRASSES	BHARUT	CENCHRUS CATHARTICUS
2		MUNI	SACERARUM MUNJA
3		BUHARI	EREMOPOGO FORESTATUS
4		LAMPA	ARISTIDA SP.
5		LATNA	LATNA CAMARA
6		DHATURA	DHATURA METAL
7		PHAD BERA	ZIZPHUS NUMMULARIS



राधा कृष्ण मात्रालक
इंजीनियर (E.M.E)

Survey report-B9 tree

S No	English Name	Scientific Name	Schedule as per wildlife protection Act, 1972
8	Cattle egret	<i>Bulbulcus ibis</i>	IV
9	Little egret	<i>Egretta garzetta</i>	IV
10	Indian Horn owl	<i>Bubo bubo</i>	IV
11	Black Drongo	<i>Dicrurus macrocerus</i>	IV
12	Crow pheasant	<i>Centropus sinensis</i>	IV
13	Indian Roller	<i>Coracis benghalensis</i>	IV
14	Brahminy kite	<i>Haliastur indus</i>	IV

REPTILES :

1	Common garden lizard	<i>Calotes versicolor</i>	IV
2	Indian chameleon	<i>Chamaeleon zeylanicus</i>	IV
3	Indian cobra	<i>Naja naja</i>	II
4	Russel viper	<i>Vipera spp.</i>	II
5	Krate	<i>Bandarus Spp.</i>	III
6	Cat snake	<i>Boiga spp.</i>	III



कर्मचारी द्वारा लिखा गया
संकेत (उपर)