

PRE-FEASIBILITY REPORT

(In terms of provision of EIA Notification 2006)

For

**Expansion of Lead-Zinc underground mines from 4.8 to 6.5 MTPA Ore
Production (Total Excavation: 7.78 MTPA including waste rock
generation of Waste: 1.28 MTPA) production and
Beneficiation from 4.8 to 7.3 MTPA**

AT

ZAWAR MINES, DISTRICT – UDAIPUR, RAJASTHAN



By
Hindustan Zinc Limited
Rajasthan

Submitted to
Ministry of Environment & Forest (MoEF)
New Delhi

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1.0 Executive Summary

- ❖ HZL is world's second largest integrated Zinc-Lead producer with a global share of approximately 6.0% in Zinc, Head quartered in Udaipur, Rajasthan
- ❖ Hindustan Zinc Limited (HZL) is actively engaged in mining and beneficiation of lead-zinc ore at Zawar group of mines. The concentrate produced is transported to captive smelters of HZL.
- ❖ Zawar Group of Mines consisting of four operating underground mines Mochia, Balaria, Zawarmala & Baroi and Bara, a prospect due for detailed exploration. The sanctioned Mining Lease no. 3/89 covers an area of 3620 hectares spread over two blocks Block I (3172 Ha) & III (448 Ha) situated near Zawar village, Tehsil Girwa & Sarada, District Udaipur in the state of Rajasthan
- ❖ Hindustan Zinc Ltd is proposing expansion in Ore (Lead- zinc) Production Capacity from 4.8 Million TPA to 6.5 Million TPA (Total Excavation: 7.78 MTPA including waste rock generation of Waste: 1.28 MTPA) and Ore Beneficiation from 4.8 to 7.3 MTPA in Zawar Underground Mines (ML Area - 3620 ha) at Villages- Zawar, Tehsil: Girwa and Sarada, District- Udaipur, Rajasthan.

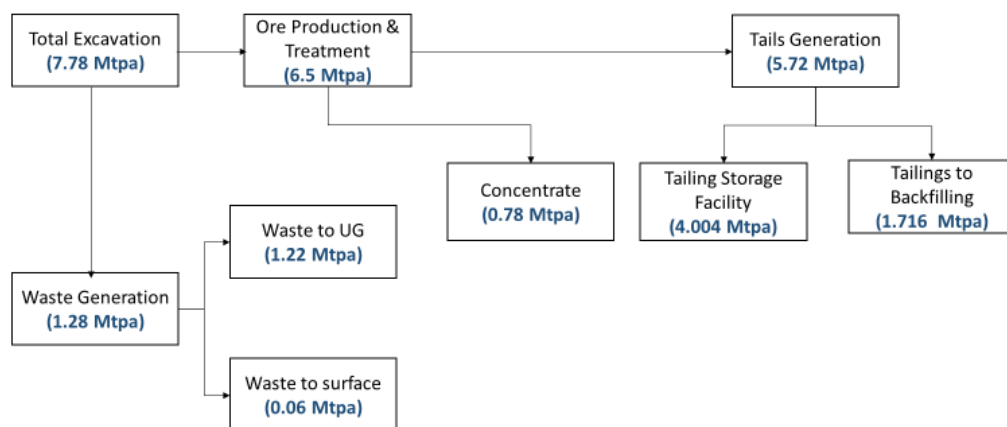


Table -1: SALIENT FEATURES OF THE PROJECT

S. No.	Particulars	Details
A.	Nature of the Project	Expansion of Lead-Zinc underground Zawar Mines & Beneficiation Plant
B.	Size of the Project	
1.	Mining Lease Area	3620 Ha

S. No.	Particulars	Details	
2.	Production capacity	Expansion in Ore (Lead- zinc) Production Capacity from 4.8 Million TPA to 6.5 Million TPA (Total excavation: 7.78 Million TPA). Expansion in Ore Beneficiation from 4.8 to 7.3 MTPA.	
C. Location Details			
1.	Near Villages	Zawar	
2.	Tehsil	Girwa and Sarada	
3.	District	Udaipur	
4.	State	Rajasthan	
5.	Latitude & Longitude	Block 1	Latitude 24°19'0.3" to 24°22'51.59" Longitude 73°40'23.24" to 73°45'12.24"
		Block 3	Latitude 24°14'43.66" to 24°16'30.81" Longitude 73°41'47.03" to 73°43'6.58"
6.	SOI Toposheet No.	45 H/11, 45 H/12, 45 H/15 & 45 H/16	
D. Cost Details			
1.	Total Project Cost	Rs. 1250 Crore	
2.	Cost for Environment Protection Measures	Capital Cost: Rs. 120 cr. Recurring Cost: Rs. 400 Lakh	
E. Requirements of The Project			
1.	Water Requirement	14000cum per day Source: Tidi Dam	
2.	Power Requirement	45 MW Source: Coal based 90MW CPP & through state grid	
3.	Man Power Requirement	Additional 1000 persons will be directly employed during construction phase Additional 750 persons will be directly employed during operational phase (Existing man power: 3400 persons)	

Environmental Management Plan

A. Air Quality Management

- The mine site has provided mechanical ventilator for air circulation
- Wet drilling is being used to suppress the dust generation
- The trucks are being covered with tarpaulin sheets

- Dust generation during working will be minimized by adoption of dust suppression systems at working faces
- Water spraying on haul road
- During transportation and unloading points, water sprinkling is being/ will be done to suppress the fugitive emissions.
- The crusher and Screens houses are provided with dust extraction system with outlets
- Development of green belt within lease area & plantation within ML Area is being done.
- Regular monitoring of air quality
- On surface, blacktop paved/ concrete roads
- Deployment of mechanized vacuum road sweeper on surface roads

B. Water Management

- No wastewater is being/will be discharged outside the ML Area
- Water reclaimed from tailing storage facility (TSF) is pumped back for use in process. Garland drains around TSF and sumps have been constructed to channelize the rainwater. Similar arrangement shall be provided for new TSF.
- Mine water constituted by seepage of rainwater and percolating ground water into the mines is being collected in underground sumps from where it is being pumped to surface storage tanks for reuse in mining operations like drilling, dust suppression and reuse in beneficiation plant.
- The wastewater generated from domestic operations is channelized to existing Sewage Treatment Plant (450KLD) and reused in plantation after appropriate treatment.
- Oil trap system at vehicle maintenance workshops and vehicle washing facilities.
- Rainwater harvesting structure in mining lease area
- Regular monitoring of surface and ground water

C. Noise Quality Management

- Majority of mining activities are restricted to underground only.
- Compressors are installed in isolated building with acoustic enclosures.
- Ventilation fans are provided with silencers
- DG set are having acoustic enclosure.
- All vehicles and machineries used have noise emissions within permissible limits through regular maintenance.
- Improved design of chutes and mill liners.
- Good grindability due to soft ore.

- Regular monitoring of noise level of mining & milling equipment.
- UG HEMM are procured with latest emission standard engines.
- UG HEMMs are equipped with airconditioned cabins thereby attenuating noise level while operating the equipment
- Green belt is developed to attenuate the noise levels
- Reducing the exposure time of workers to the higher levels of noise
- Provision of personnel protective equipment like ear plugs, earmuffs etc.

D. Solid Waste Management

- Waste rock generated during development activities is being disposed in underground and tailing storage facility (TSF) construction
- Garland drains around tailing disposal facility to avoid rainwater run-off contamination.
- Hazardous wastes are being stored in designated areas and being disposed/ recycled through registered recyclers.
- Plantation & greenbelt development will be continued which will help prevent soil erosion.
- The hazardous wastes are handled in compliance with the HWM rules. All hazardous wastes are stored in covered drums/tanks/covered sheds before sale or disposal to registered vendors. The hazardous wastes generated are Waste Oil, Used Oil, Sodium Cyanide Drums and Residues from Haz chemicals.
- Two types of non-hazardous solid wastes are generated in present mining & beneficiation operation. The waste rock generated from mine development is utilized for height raising of tailing storage facilities (TSFs)& embankment strengthening; balance quantity is disposed off in underground mine voids.
- The tailing generated from beneficiation operation is being pumped to dry tailing plant where water is separated from slurry and recycled back and dry cake is disposed off in Tailing storage facility.
- Recent feasibility study undertaken through CSIR-CRRI (Central Road Research Institute) shown positive outcome wrt utilization of tailing in road construction i.e.
 - about 2 to 5% of tailing can be used as partial replacement of fine aggregate in granular sub base and base layer
 - about 5 to 7% of tailing can be used as partial replacement of fine aggregates in bituminous mixes as a partial replacement of fine aggregates.

- DLC (dry lean concrete) and PQC (pavement quality concrete) mixes prepared by partial replacement of fine aggregate with tailing upto 60 percent and 40 percent respectively, satisfy the design criteria as per MoRTH specification (compressive and flexural strength). Therefore, tailing may be tried for use in the construction of DLC and PQC layers of rigid pavement.
- Factor of safety of tailing embankment under different conditions is more than 1.25 which indicates that it is safe as per IRC-75 (2015). FoS is higher in partial saturated condition in comparison to sudden draw down condition similar to soil behavior. For a typical embankment (3 m), primary settlement is about 20 mm which is far below the permissible limit (300-600mm).

E. Green Belt Development

- Till date, plantation has been carried out in an area of 170.85 Hectares at various places in Zawar mines.
- The species planted area Neem, Kaner, Gulmohar, Karanj, Sheesam and Casaea as these are capable of surviving in semi arid climatic condition. The survival rate is around 70-80%. Regular maintenance of plants are carried out by Watering, deweeding and hoeing. Further, present Tailing storage facility which is in active use will be stabilized by vegetative cover, when it will have its full capacity of tailing storage.

2.0 Introduction Of The Project/ Background Information

(i) Identification of Project and Project Proponent

a. Identification of the Project

Zawar Group of Mines consisting of four operating underground mines Mochia, Balaria, Zawarmala&Baroi and Bara, a prospect due for detailed exploration. The sanctioned Mining Lease no. 3/89 covers an area of 3620 hectares spread over two blocks Block 1 & 3 situated near Zawar village, Tehsil Girwa& Sarada, District Udaipur in the state of Rajasthan.

Hindustan Zinc Ltd is proposing expansion in Ore (Lead- zinc) Production Capacity from 4.8 Million TPA to 6.5 Million TPA (Total excavation: 7.7 Million TPA) and Ore Beneficiation from 4.8 to 7.3 MTPA in Zawar Underground Mines (ML Area - 3620 ha) at Villages- Zawar, Tehsil: Girwa and Sarada, District- Udaipur, Rajasthan

b. Identification of Project Proponent

- Zawar Group of Mines is the oldest lead-zinc mine in India and is the carrier of ancient heritage for mining & smelting operations. Ancient smelting & mining operations at Zawar dates back to more than 2000 years from now and occupies a place on the heritage map of world. The extent of operations is reflected by numerous ancient mine workings and smelting furnaces with a well-preserved artifact of civilization engaged in the business of mining & smelting of zinc. The regular exploration was initiated by GSI in the year 1942 and established Mochia deposit. M/s Metal Corporation of India took license for mining Mochia deposit in the year 1945 and continued the mining & beneficiation @ 500 TPD (0.17 MTPA) at Mochia mine. The company carried operations till 1966 when Govt. of India nationalized the operations and formed M/s Hindustan Zinc Limited. The company took up the legacy and grew many folds and increased its mining and beneficiation capacity to 1.2 MTPA by adding three more mines Balaria, Zawarmala & Baroi over the years. In the year 2002, Govt of India disinvested HZL in favour of M/s Sterlite Opportunities & Ventures Limited. In the year 2009, Zawar Group of mines obtained environmental clearance to attain 1.5 MTPA of ore production & beneficiation capacities. In the year 2015, obtained Environment clearance for expanding capacity from 1.5 to 4 Million TPA of Ore production (Total excavation: 6.0 Million TPA) and 4.8 Million TPA of Ore treatment. Now, Zawar Group of mines is proposing to expand Ore (Lead-Zinc) Production Capacity from 4.8 Million TPA to 6.5 Million TPA (Total Excavation: 7.7 Million TPA) and Ore Beneficiation from 4.8 to 7.3 Million TPA.
- Zawar mining lease hold in its present holding is constituted by two blocks Block 1 & Block 3. Block 1 comprises four underground Pb-Zn mines viz Mochia, Balaria, Zawarmala & Baroi with a matching integrated ore beneficiation plant. Whereas Block 3 located near Bara is a Pb dominant prospect.

(ii) Brief Description of the Nature of Project

Hindustan Zinc Ltd is proposing expansion in existing underground mines Near village Zawar, Udaipur District, Rajasthan from the present capacity of 4.8 Mtpa to 6.5 Mtpa of ore production (Total excavation: 7.7 Million TPA) and 7.3 Mtpa beneficiation capacity. The project is mechanized underground Lead-Zinc mines and integrated

beneficiation plant project.

The total mining lease area is 3620 hectares spread over two blocks; Block 1 (3172 hectares) & Block 3 (448 hectares)

SCREENING CATEGORY

As per EIA Notification dated 14th September, 2006, as amended from time to time; the project falls under S. No. '1' (Mining of Minerals), Project or Activity '1(a) - (3)', Category "A" and Project or Activity 2 (b) - 3 for "Ore Beneficiation."

A. Mining Lease Status

Initial mining lease for Zawar area for a lease hold area of 5178 hectares (Block 1,1A, 2, 3 & 4) was granted for the period from 1st April'1950 to 1st April'1970 as per agreement between Rajpramukh, Rajasthan & M/s Metal Corporation of India. Successive renewals have been made by entering into agreement with Government of Rajasthan as under:

- **1950-1970**: Original Lease granted by Rajpramukh, Rajasthan in favour of Metal Corporation of India over an area of 5178 hectares in five blocks 1,1A, 2,3 & 4.
- **1970-1990; I Renewal**: In favor of HZL vide Govt. of Rajasthan Sanction letter no. F.2(4)/Khanij/70 Dated 13.03.1973 & Memorandum no. ME/UD/C.C.III/F.1(4)(27)69/198 dated 16.01.1975.
- **1990-2010; II Renewal**: vide Govt. of Rajasthan sanction letter no. i-12/26/[kku xzqi-2/90 Dated 20.10.1992 for 5178 hectares for the period from the year 1990 to 2000. Due to low mineralization potential, HZL opted for reduction of lease hold area from 5178 to 3620 hectares, by surrendering an area of 1558 Ha. The area surrendered consisted of 678.89 Ha of Forest land and 879.11 Ha of non-forest land. The reduced lease area of 3620 Ha consisted on 1537.91 Ha of Forest land. Further, as required under the Forest Conservation Act 1980, clearance for diversification of forest land was granted by MoEF for the Forest area of 1537.91 Ha including 114.94 Ha for surface use vide Order no. 8-1/97-FC Dated 15/16.6.98. HZL entered into an agreement with Govt of Rajasthan on 25.04.2000 on renewal of leasehold of 5178 hectares from 30.03.1990 to 05.01.2000 & 3620 hectares for the period from 06.01.2000 to 29.03.2010.

- **2010-2030:** Deptt. of Mines & Geology, Govt. of Rajasthan recently extended the lease validity till 31.03.2030 as per Section 8A (5) of MMRD (Amendment) Ordinance 2015 vide letter dated 26.02.2015 considering Zawar Group of Mines as "CAPTIVE". The ongoing process of III renewal (30.03.2010 to 29.03.2030) were made null void and made the agreement entered in the year 2000 stands accepted for extended lease validity up to 31.03.2030.

The mining lease documents has been attached as Annexure I.

B. Status of Mining Plan Approval

- Mining Plan for the period 2020-21 to 2024-25 and conceptual plan for the balance lease period i.e. upto 2029-30 has been approved by IBM vide letter no. 584(4)(3) (1809)/2019- [Sh-Khanij M; dated 19.12.2019, The consolidated approval covers all the four operating mines (Mochia, Balaria, Zawarmala and Baroi), Bara deposit and integrated beneficiation plant at a combined incremental capacity of 5.9 Mtpa of ore production & beneficiation in the year 2021-22 to 2024-25.
- The lease is approaching IBM authority for seeking modification in approved mining plan (proposal 2021-2025) due to change in business scenario. For this it has been proposed to increase ore production & beneficiation in progressive manner from 4.8 Mt to 5.9 Mt by 2024-25 with increase in Mochia, Balaria, Zawaramala & Baroi mine. For this we will be approaching to MoEF, New Delhi for Environment Clearance for increased ore production & beneficiation capacity. Ore production of 6.5 Mtpa will sustain in proposed Mining plan. Subsequently, dry stacking tailing disposal & backfilling system being implemented, and exploration & development targets has been increased.
- For sustenance of progressive production to support make in India program, Plan of 6.5 Mtpa ore production & 7.3 Mtpa beneficiation in conceptual plan is being submitted under rule 17(3) of Minerals (other than Atomic and Hydrocarbons Energy Minerals) Concession Rules, 2016 is being submitted for approval.
- Ore production of 6.5 Mtpa will sustain as per Mining Plan. Subsequently, dry stacking tailing disposal & backfilling system

being implemented, and exploration & development targets has been increased.

- The Mining Plan with Progressive Mine Closure Plan document being submitted covering detail plan / proposal for all the four operating mines, beneficiation and exploratory activity in leasehold area.
- The mining plan has been approved by IBM, Ajmer vide letter no. S.no. 584 (4) (3) (1868)/ 2021 – Sh.Khani- Ajam on 15.07.2021 Copy of same is enclosed as **Annexure II.**

C. Status of Existing Clearances

Table-2

STATUS OF EXISTING ENVIRONMENTAL CLEARANCES AND CONSENTS

Existing Environmental Clearances (EC)			
S. No.	Particular	Letter No & Date	Ref
1.	Environment clearance for enhancement of production capacity from 1.2 to 1.5 MTPA ore production and beneficiation was granted.	11015/289/2009-IA.II(M), Dated 30.10.2009	<u>Annexure III</u>
2.	Environment clearance for 4.0 MTPA ore production and beneficiation was granted in favor of Hindustan Zinc Limited	11015/259/2012-IA.II(M), Dated 05.01.2017	<u>Annexure IV</u>
3.	Environment clearance under Para 7 (ii) for expansion in Zinc Ore from 4.0 to 4.8 MTPA and expansion in beneficiation plant from 4.0 to 4.8 million TPA	11015/259/2012-IA.II(M), Dated 16.10.2020	<u>Annexure V</u>
Existing Consent for Operation (CTO)			
1.	CTO for 4.8 Million TPA of Lead Zinc Ore Production by RSPCB	F(Mines)/Udaipur(Sarada)/53(1)/2016-2017/4491-4495 (Valid till 31.12.2022)	<u>Annexure VI</u>
2.	CTO for 4.8 Million TPA	F(CPM)/Udaipur(Sarada)/2(I)/2020-	<u>AnnexureVII</u>

	Lead Zinc ore beneficiation by RSPCB	21/4885-4887&F(CPM)/Udaipur(Sarada)/2(l)/2017-2018/10088-10090 (Valid till 31.12.2022)	
Existing Forest Diversion Permission			
1.	Approval for diversion of forest land was granted by MoEF with a validity co-terminus with mining lease	vide letter No. 8-1/97-FC dated 15/16.06.1998	<u>Annexure VIII</u>
2.	Renewal of the forest diversion was granted.	vide letter No. 8-1/97-FC dated 23.01.2015	<u>Annexure IX</u>
Forest Diversion Application			
1.	Application for forest diversion for additional surface rights for 68.95 ha of forest land	Proposal no. FP/RJ/MIN/25404/2017 dated 16.05.2017	<u>Annexure X</u>

(iii) Need for the Project & its Importance to the Country/ Region

Need for the Project

- Zinc is a very versatile non-ferrous metal. Zinc's different applications rank it as the 4th most common metal in use after iron, aluminum and copper. It is evident that the consumption is increasing and there is a gap between the demand and supply.
- Many of the Zinc operation are getting closed globally. Therefore, to maintain the HZL's metal production & to improve in future and looking to Reserve & Resource potential of Zawar, expansion has been considered at Zawar Mines along with various UG mines of HZL.
- It is expected to grow at similar rates due to primary demand of zinc in galvanizing steel which protects the steel from corrosion. Other major uses for zinc include its utility in brass and bronze among many alloys; die casting, batteries, chemical compounds such as paint, ceramics and pharmaceuticals etc.

Importance to the Country/ Region

Exploiting this Lead-Zinc deposit is critically important for the country's long-term economic growth. By expansion of mining and beneficiation, HZL will provide the country with increased Government earnings and revenues, transform the region's economy from predominantly agricultural to significantly industrial, and accelerate the pace of industrial development in the region.

(iv) Demand – Supply Gap

Global Zinc & Lead consumption is expected to grow steadily by 4-5 % per annum in coming years which needs to be met by higher mine & smelter output. As India is one of the fastest growing economies in the World, adequate support from metal sector is essential to support & sustain infrastructure development & growth.

The lead industry in India is poised to perform well on the back of good demand prospects. India is Asia's largest lead consuming market after China where growth is largely dependent on the demand from the automotive sector and the industrial sector. India has the second largest number of mobile subscribers in the world after China and is currently ranked 5th in global vehicle production. India's growing telecom industry and on-going infrastructure development has boosted the industrial battery demand, as is the case with an expanding photovoltaic market which is planned to reach 227 GW by 2022. Lead will continue witnessing a robust demand, driven mainly by the automotive and industrial battery segments. India's automobile market is expanding fast and is expected to play a significant role in leading demand growth going forward. The automobile sector, the telecom sector and the power sector (solar, wind and invertors) will be the main demand drivers for lead usage. Huge opportunities for battery demand growth make the outlook for lead metal positive.

India is likely to witness a substantial growth in the demand for lead batteries given that several sectors, including automotive, telecommunication, railways and defense, are set to expand in the years ahead. As a battery ingredient, lead is increasingly used in inverters, UPS and similar energy storage devices.

The demand for zinc in India is robust with 70% of it coming from galvanizing sector which is witnessing rising penetration of galvanized steel in domestic car models. The on-going restructuring of the steel industry and adherence to upcoming IS277 coating standards bodes well for zinc consumption in India. Alloys & die cast alloys have increasingly been finding applications across sectors. Zinc demand in India will be a beneficiary of higher construction spending with projects under metro rail, Smart Cities Mission and Swachh

Bharat Abhiyaan (Clean India Mission) driving investments in urban infrastructure.

Zinc is a very versatile non-ferrous metal. Zinc's different applications rank it as the 4th most common metal in use after iron, aluminum and copper. Global zinc consumption is forecast to grow at a compound average annual rate of 2.4 % p.a. over the period 2019-2024. Global zinc consumption is projected to grow to 20 Mt in 2035 representing average annual increase of 0.28 Mt.

(v) Imports Vs. Indigenous Production

The present production capacities of Zinc in India are sufficient to meet the domestic requirements. However, the demand for zinc in India is expected to grow at a rate of 8-10% per annum nearly twice the rate at which global demand is tipped to grow which makes it viable for the expansion of the zinc production capacities. As India is a developing economy, overall zinc consumption is forecast to continue to increase in India due to the development of large infrastructure, and the strengthening of their middle class (and subsequent improved purchasing power). As more structures are built and vehicles are made, zinc alloys will continue to be in grow in demand. Further the deficit in international market during the upcoming years provides opportunity for export.

(vi) Export Possibility

India was the seventh largest exporter of the primary zinc in term of volumes. Indian exports majorly catered to South East Asian and African nations. In India, since, Hindustan Zinc is the largest producer of primary zinc, export of zinc is highly feasible and shall bring value addition. Thailand, Philippines, Vietnam, Bangladesh, Malaysia, Indonesia, China, Taiwan, Turkey, Egypt, Nigeria, etc .

(vii) Domestic Market

Zinc having found primary application in galvanization; a range of galvanized products are produced to meet various industrial and consumer demands. Galvanized sheets (corrugated and plain), galvanized pipes, galvanized structures, galvanized sheet, galvanized wires are used for various applications. Among the major customer segments, Galvanized Sheets accounts for major share of

the zinc consumption followed by structures and Alloys.

(viii) Export Market

India has the potential for exporting zinc profitably. The industrial growth in growing countries of the world backed by growth in automotive sector, construction industry, engineering products & consumer goods drives the demand for zinc. The chart below describes the distribution of zinc based on its use in global market, from which the market for exports shall be interpreted.

(ix) Employment Generation (Direct and Indirect) Due to the Project

Direct & indirect employment generation potential for proposed expansion will be 750 and 7500 respectively during operational phase.

Direct & indirect employment generation potential for proposed expansion will be 1,000 and 10,000 respectively during construction phase.

3.0 Project Description

(i) Type of Project Including Interlinked and Independent Projects If Any

**Table 3:
Details of interlinked project**

S. No	Name of Project along with capacity	Status of Environment clearance
1.	Dariba Smelter Complex {Zinc Smelter (2,50,000 TPA), Lead Smelter (1,25,000 TPA), Captive Power Plant (2x85 MW) at Village & Post Dariba – 313 211, Tehsil Relmagra, District Rajsamand, Rajasthan by Hindustan Zinc Ltd. EC obtained from MOEFCC, New Delhi vide	EC in place (Letter No. J-11011/380/2008-IA II (I) dated 4.11.2009)
2.	Zinc Smelter Debari (Expansion of Zinc Smelter from 80,000 TPA to 1,00,000 TPA) at Village Debari, Udaipur, Rajasthan by Hindustan Zinc Ltd.	EC in place (Letter no. J-11011/479/2006-IA II (I) dated 25.03.2008)
3.	Chanderiya Lead Zinc Smelter	EC in place. (Concurrence for the Lead Zinc Smelter

		<p>{Pyro Plant} was granted vide Letter No. J-11013/29/92-EI dated 03.06.83 by Principal Scientific Officer, GoI, Environment Department, New Delhi followed by NOC issued by Rajasthan Board for Prevention and Control of Pollution vide letter No. F. 12 (723) RPCB / NOC / 1535 dated 26th April 1991 and F.12 (723) RPCB / NOC / 5160 dated 29th June 1992. Environment Clearance (EC) for {Hydro Plant } Zinc Smelter I & CPP - 1,70,000 Zinc & 154MW was granted vide F.No.J-11011/158/2003-IA.II(I) 31.03.2004 & 06.12.2006; Environment Clearance (EC) for Zinc Smelter II 2,50,000 Zinc & CPP 100 MW was granted vide F.No.J-11011/279/2006-IA.II(I) 06.12.2006 and Fumer as granted vide F.No.J-11011/279/2006-IA.II(I) 5.10.2015. EC for Ausmelt Lead Smelter Plant was granted vide F.No.J-11011/17/2005-IA.II (I) 3.8.2005. Recently Environment Clearance has been accorded for Hydro-I & II unit on combined basis with production capacity of 5, 04,000 TPA Zinc by MOEFCC, New Delhi vide letter no. J-11011/279/2006-IA.II (I) dated 14.10.2020).</p>
4.	90 MW Captive Power Plant in Zawar.	EC in place (EC No: No.J-13011/79/2007/IA.II(T) dated 05th Feb 2008 and amended on 20.10.2008)

(ii) Location (Map Showing General Location, Specific Location, and Project Boundary & Project Site Layout) With Coordinated

**Table 4
Location details**

Location Details		
1.	Near Villages	Zawar

2.	Tehsil	Girwaand Sarada		
3.	District	Udaipur		
4.	State	Rajasthan		
5.	Mine area coordinates	Block 1	Latitude	24°19'0.3" to 24°22'51.59"
			Longitude	73°40'23.24" to 73°45'12.24"
		Block 3	Latitude	24°14'43.66" to 24°16'30.81"
			Longitude	73°41'47.03" to 73°43'6.58"
6.	SOI Toposheet No	45 H/11, 45 H/12, 45 H/15 & 45 H/16		

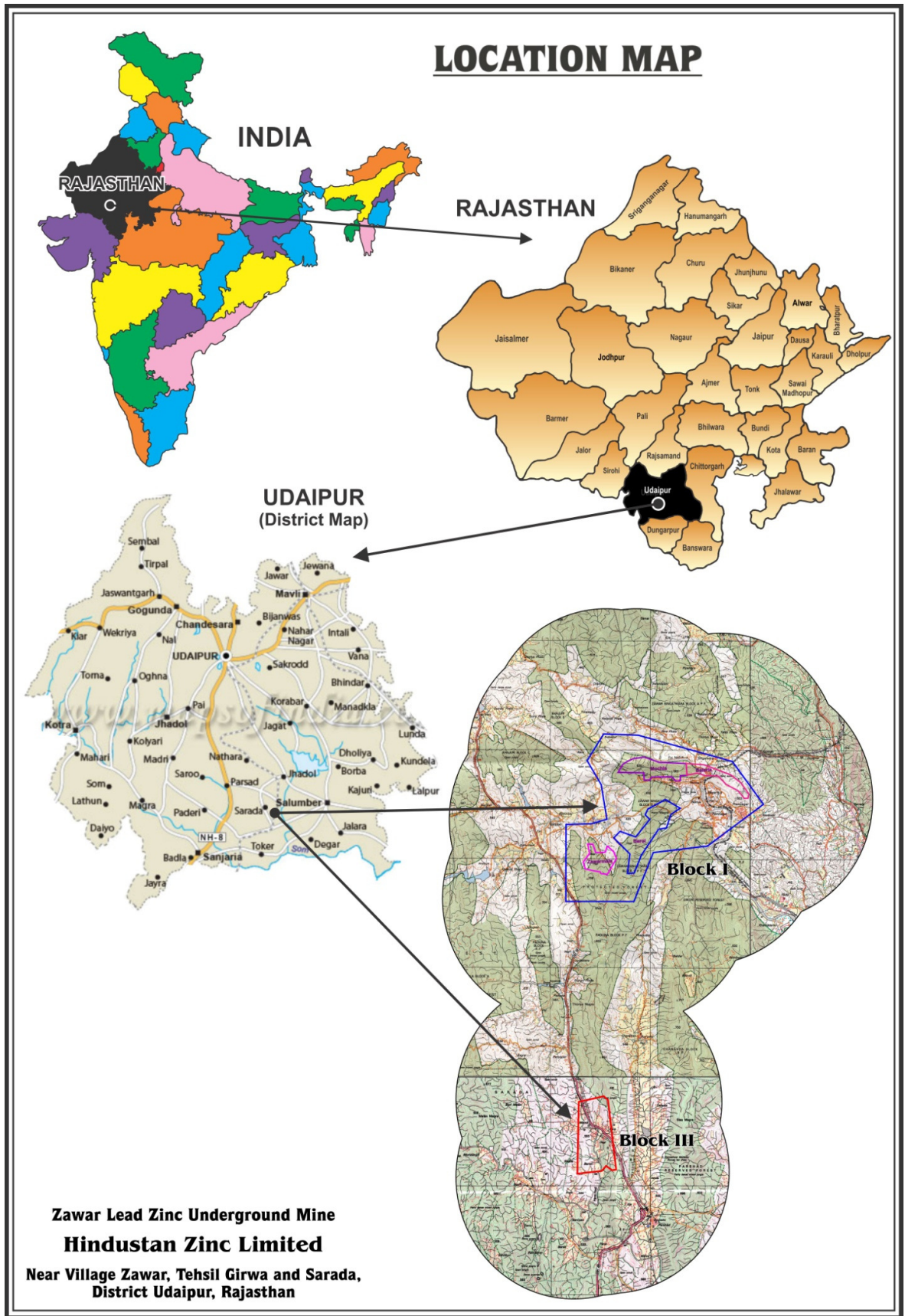


Figure 1.1 :Location Map

(iii) Details of Alternative Site Consideration and Basis of Selecting the Proposed Site Particularly the Environmental Considerations Done Should be Highlighted.

Expansion in Ore (Lead -Zinc) Production capacity will be carried out in the Existing Mining Lease area. No alternative site has been taken into consideration as the ore (Lead-Zinc) has already been proved with adequate reliability at this site. The project is site specific.

(iv) Size or Magnitude of Operation

Expansion in Ore (Lead- zinc) Production Capacity from 4.8 Million TPA to 6.5 Million TPA and Ore Beneficiation from 4.8 to 7.3 MTPA in Zawar Underground Mines (ML Area - 3620 ha) at Villages- Zawar, Tehsil: Girwa and Sarada District- Udaipur, Rajasthan.

Past Production details (For 1974-2016) have been authenticated by DMG, Udaipur dated 23.04.2005.

Past Production details (For 2016-2020) have been authenticated by DMG, Udaipur vide letter no. Kha/Udai/S.No/ ML 3/1989/07 dated 30.0.2020.

Past Production details for the year FY 2020-21 have been authenticated by Mining Engineer, Department of Mining and Geology on dated 14.06.2021. Copy of the authenticated production data upto FY 2020-21 is enclosed as **Annexure XI**

(v) Project Description with Process Details (A Schematic Diagram/ Flow Chart Showing the Project Layout, Components of the Project etc. Should be Given)

A. Local Geology

Ore deposit type of Zawar group of mines is lenticular bodies of all dimensions including bodies occurring enclon, silicified linear zones of composite veins, lenses, pockets, stock works; irregular shape modest to small size ore bodies. Bore hole spacing along strike kept 50-25m or close interval. Zawar Lease hold comprises of four operating underground mines situated in Block 1 of lease hold and Pb rich prospect in Bara in Block 3.

Block 1 – Detailed Description of Geology

Geological Setting:

Block 1 is a conglomeration of four deposits Mochia, Balaria, Zawarmala & Baroi situated in a complexly folded geological structure. All the deposits are hosted in meta-sedimentary sequence for base metal mineralization. Host dolomite is flanked by Greywacke, Phyllite on south

and Phyllite & Quartzite on the north. Stratigraphically, the rocks of the mine area form part of Mandli, BaroiMagra and Zavar formations of Tiri Series in the regional stratigraphical sequence. Generalized succession of the deposit is given below:

Series	Formation	Member	Litho unit
-----Unconformity----- -----			
Tiri series	Zavar formation	Haran member	Upper Phyllite, Quartzite
	BaroiMagra formation	Mochia member	Dolomitic quartzite, pure dolomite, siliceous dolomite (Host rock), sub-greywacke (?), argillaceous quartzite and interbedded phyllites
	Mandi formation		Greywackes

Fig 1.2 - Local Geological Setting of Block 1

Mineralization:

Base metal sulphide deposits occur throughout Zavar solely within the dolomitic horizon of the BaroiMagra formation. Most of these occurrences are manifested at the surface by ancient workings in the form of long-abandoned trench mines, circular shafts and inclines. These usually penetrate for a few tens of meters in depth but some of the early workings in Zawarmala, Balariaand Mochia do extend for more than 100 m vertical depth. The ancient mines systems give much information to the mining geologist concerning the shape, size and attitude of the exploited or explored ore lenses and of the deposits below the surface, but they give little data on the grade of the ore mined in the past or of the depth extension of mineralization. Salient aspects of four deposits of Zavar Lease Block 1 are as under:

Host rock - Carbonate sequence (Dolomites & its facies variants) belonging to

Mochia member overlying a rhythmic succession of Greywacke, Phyllite & Quartzite.

Genesis & Control of Mineralization:

Stratiform & strata bound, has undergone transformation & re-mobilization under low temperature conditions.

Mochia&Balaria - Galena Pb ore) &Sphalerite (Zn ore) veins and

veinlets concentrate into E-W to NW-SE trending, steeply dipping & westerly plunging tabular ore bodies having a width ranging from 2 m to 45 m.

Zawarmala - Mineralization concentrated at the core of the anticline and follows the axial plane of the fold plunging 40° due North.

Baroi - Disseminated Pb & Zn mineralization is in the form of NE-SW trending tabular ore bodies dipping due NW and plunging due West.

Table 5: Salient geological feature of Zawar deposit (Block -1)

	Particulars	Mochia	Balaria	Zawarmala	Baroi
1	Strike Extension	2850 m	2850 m	550 m	2500 m
2	Rock Type	Greywacke, Phyllites, Dolomites, Quartzite, Dolerite Dyke	Greywacke, Lower Phyllites, Dolomites, Carb. Phyllite, Dolerite Dyke	Interbedded Quartzite, Dolomites, Carb. Phyllite	Greywacke, Dolomites, Quartzite, Phyllites, Dolerite Dyke
3	Attitude of Litho Units	E-W/80N	N40-70W / 80NE / E-W 80N	N10W/70E N30E/45W	N40E/50-80NW N20E/50-80NW
4	Host Rock	Dolomite (Sill. & Pure)	Dolomite (Sill. & Pure)	Dolomite (Sill. & Pure)	Dolomite (Sill. & Pure)
5	No. of Ore Lenses	40	36	4	21
6	Type of Ore Lenses	Overlapping veins & veinlets / disseminations	Overlapping lenses with enechelon pattern	Fracture filling, veins and dissemination along fissility planes and fractures	Parallel and overlapping veins and disseminations
7	Attitude of Lenses A. Strike / Dip B. Plunge	WNW/70-80S 50-60NW	N10W/70SW- N65W/70SW 50-60NW	Varies from NW-SE to NE- SW 50-60NW	N15-50E/60NW 50-60NW
8	Strike Length of Lenses	60 - 200 m	60 - 200 m	60 - 150 m	60 - 250 m
9	Width Range of Lenses	2 - 45 m	2 - 40 m	2 - 40 m	2 - 20 m
10	Major Minerals	Sphalerite,	Sphalerite,	Sphalerite,	Sphalerite,

		Galena	Galena, Pyrite	Galena, Pyrite	Galena
11	Major Joint Sets	i. N70W/86S ii. S45E/57NE iii. N-S/88W	i. N15W-S15E /70E-90 ii. N15W-S15E /32-45W iii. E-W/80N90 iv. Subhoriz-Horiz	i. N30W-S30E/85SW ii. N10E-S10W/80SE iii. N30E-S30W /50NW iv. E-W/66N	i. N69W-S69E /70SW ii. N44W-S44E /42NE iii. N69W-S69E /26SW

Table 6: Salient geological feature of Bara prospect (Block -3)

1	Total Leasehold Area	448 Ha
2	Main Hills	i. ChittoraMagra ii. BhanwaraMagra iii. UmredaMagra
3	Highest Level	640 mRL
4	Valley Level	430 mRL
5	Total Strike Length of Carbonat Horizon in Mapped Area	1.5 kms
6	Trends of S-Planes (Bedding / Foliation)	N-S / 80° W
7	Trends of Major Joint Sets	1. E-W / 80° N 2. N50° E / 80° SE
8	Plunge of main lineation	40° / N

B. Method of Mining

Operations at Zawar include mining of ore from four mines and beneficiation at the integrated plant to produce concentrate to cater the requirement of captive smelters of the company.

At Zawar, the litho-environment is competent and self-supporting and thus allows creation of open stopes. Depending on ore body configuration, the open stopes are made longitudinal & transverse. Besides conventional stoping, mass blast of remnant pillars has also been successfully executed.

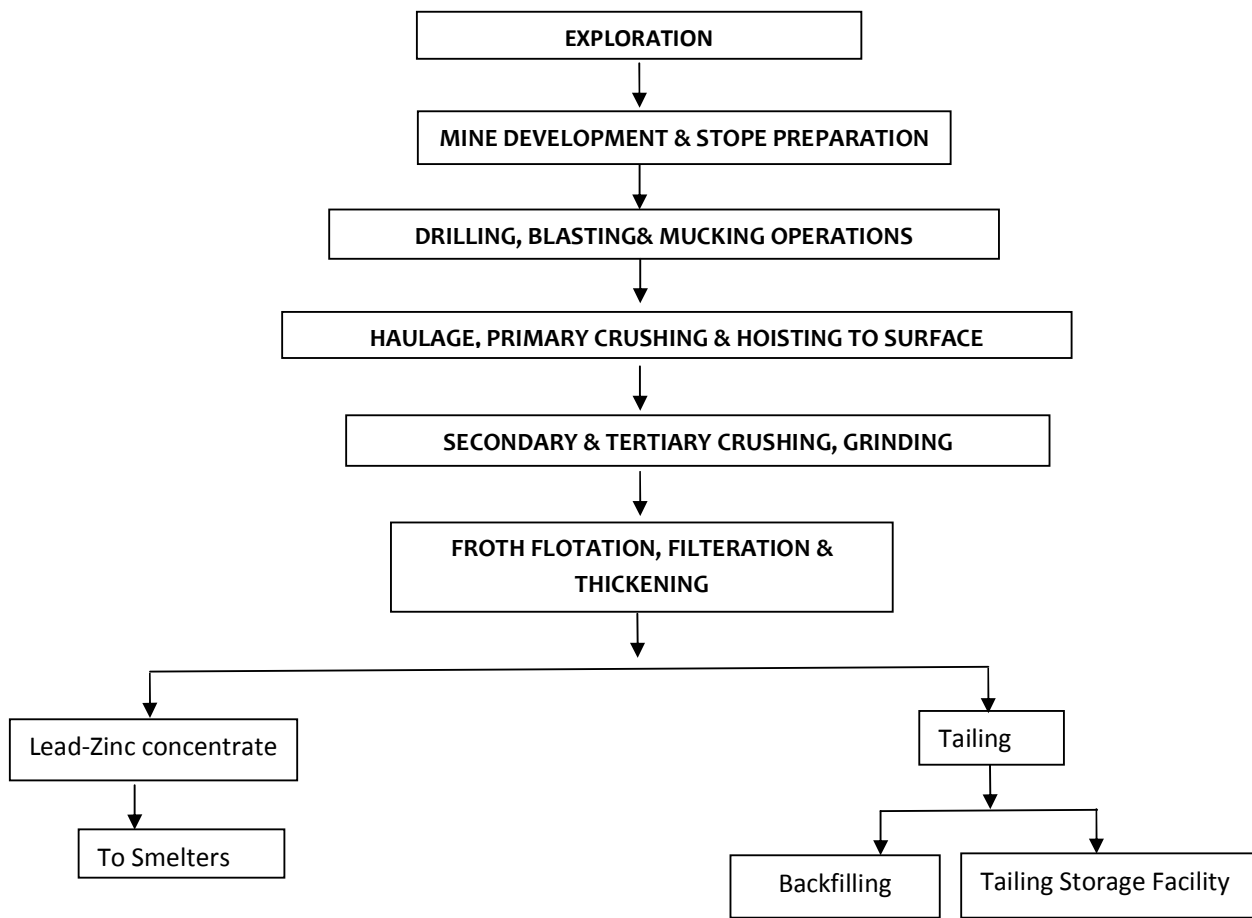


Figure 3: Mining and Beneficiation Process Flow Chart

Proposed Modification in mining method:

Sub-level Open Stopping (Longitudinal & Transverse)

The litho-environment is competent and self-supporting and thus allows for adoption of open stopping mining method. Longitudinal & Transverse sub-level open stopping method of mining shall be continued with some variants for optimizing mine development quantum, enhancing mechanization, productivity and optimizing ore recovery during Mining Plan and Conceptual Mining period. The various modifications for improvement are as follows:

- 1) Ramp connectivity from Surface at all mines, connecting various levels & sub- levels thus allowing high level of mechanization for development, drilling and ore hauling. The decline from surface allows greater flexibility in operation as it is possible to lower down mining equipment through it. It will enable additional ore hoisting capacity and faster man & material movement to UG location.
- 2) Use of remote control LHD for mucking operation allowing mining of ore being blocked in trough pillars and improving blasted ore recovery into stopes.

3) Hauling of ore / waste from underground to surface through 60T / 30T / 20T LPDTs.

4) Sublevel stoping with post backfilling:

Mining method with backfilling in selected areas of the mine would be suitable for global stability, enhanced ore recovery and generation of more work areas. But on the other side, Zawar ore bodies are of marginal grade and cost of Production plays an important role for economic viability. The increase in production volume, optimum ore recovery and low-cost backfilling option can provide us basis for implementing mining method with backfilling.

The potential mining methods can be as follows:

a) Sub-level open stoping (SLOS) with backfilling in primary & secondary sequence, which can be adopted for Mochia, Balaria or Baroi mine subject to technical & economic analysis.

b) Bench stoping with waste filling, which may be applicable in the case of Mochia, Balaria and Baroi mine, where the ore body width is less. This method improves ore recovery, selective mining method and reduces shangwall dilution. It uses development waste as backfill material for mining of adjacent upper level.

c) Sub-level open stoping (SLOS) with backfilling in transverse primary & secondary advance sequence, which can be applicable for Zawarmala or other mine, where ore body width is more.

d) Pillar Mining: The extraction of pillar is proposed during conceptual Mining period. After considering the global stability aspects and study works, majority of the pillar can be extracted at Zawarmala mine and some of pillars at other mines.

C. Details of the Mineral Resource & Reserves

Table 7
Mineral Resources & Reserves (As on 01.04.2021)

Particulars	UNFC Code	Ason01.04.2021				
		Quantity in millions	Grade			
			% Pb	% Zn	Agp	%TMC
A. Total Mineral Reserve						
Proved Mineral Reserve	111	19.39	1.	2.9	21	4.64
Probable Mineral Reserve	121	0.000	0.	0.0	0	0.00
	122	15.10	1.	3.0	28	4.75
Total Reserves		34.49	1.	3.0	24	4.69
B. Total Remaining Resources						
Feasibility Mineral Resource	211					
Prefeasibility Mineral Resource	221	21.071	1.	4.0	27	5.99

	222	11.86	1.	3.9	27	5.66
Measured Mineral Resource	331	-				
Indicated Mineral Resource	332	-				
Inferred Mineral Resource	333	75.321	2.	4.1	40	6.68
Reconnaissance mineral resource	334	-				
Total Resource		108.26	2.	4.1	36	6.43
Total Reserves + Resources		142.75	2.	3.8	33	6.01

D. INSITU TENTATIVE EXCAVATION

Table 8

Particulars	Mine	UoM	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Ore Production	Mochia	MT	1600000	1800000	1900000	2100000	2300000	2300000	2300000	2300000	2300000
	Balaria	MT	1150000	1150000	1300000	1300000	1500000	1500000	1500000	1500000	1500000
	Zawarmala	MT	550000	550000	600000	600000	700000	700000	700000	700000	700000
	Baroi	MT	1800000	1900000	1900000	1900000	2000000	2000000	2000000	2000000	2000000
	Zawar Mines	MT	5100000	5400000	5700000	5900000	6500000	6500000	6500000	6500000	6500000
Waste Generation	Mochia	MT	409000	395000	421000	446000	446000	446000	446000	446000	446000
	Balaria	MT	292000	292000	292000	292000	279000	279000	279000	279000	279000
	Zawarmala	MT	82000	86000	88000	91000	86000	86000	86000	86000	86000
	Baroi	MT	414000	429000	457000	457000	379000	379000	379000	379000	379000
	Zawar Mines	MT	1197000	1202000	1258000	1286000	1190000	1190000	1190000	1190000	1190000
Total Excavation	MT	6297000	6602000	6958000	7186000	7690000	7690000	7690000	7690000	7690000	

E. LAND USE DETAILS

Table – 9
Stage wise land use pattern

S. No.	Land use	Pre-Operational	Operational (Ha)		Post – Operational (Ha.)	
			Existing	Post Expansion		
1	Agricultural land	284.29	284.29	284.29	284.29	Undisturbed
2	Grazing Land	59.84	59.84	59.84	59.84	Undisturbed
3	Settlement	99.75	146.41	146.41	146.41	Community
4	Barren land (Govt.)	1529.09	1160.8	1160.8	1160.8	Undisturbed
5	Barren Land (HZL)	0	58.15	44	0	Divert for plantation
6	Industrial/ Mining Use	0	207.57	276.52	0	Divert for plantation
7	Plantation	0	170.85	185	321.63	Plantation
8	Forest Land	1537.91	1422.97	1354.02	1537.91	Forest land
9	River and Water Bodies	109.12	109.12	109.12	109.12	Undisturbed
Total		3620	3620	3620	3620	

(vi) Raw Material Required Along with Estimated Quantity, Likely Source, Marketing Area of Final Products, Mode of Transport of Raw Material and Finished Product

- This project is of expansion in production capacity of Zawar (Lead-Zinc) Mine, thus no raw material is required.
- Lead and Zinc concentrates are sent to Dariba / Chanderiya/ Debari Smelters for smelting. The concentrates so produced are sent to respective smelters through road transport.

(vii) Resources of Optimization/ Recycling and Reuse Envisaged in the Project, if any, should be Briefly Outlined.

As per the Feasibility study by CSIR-CRRI (Central Road Research Institute) wrt utilization of tailing in road construction, tailing will be utilized for internal road construction.

Topsoil generated shall be utilized for plantation and horticulture activities.

100% mine dewatered shall be utilized for process and other construction activities.

- Dry tailing plant (DTP) has been installed which recover the water from tailing before disposal
- Further, high rate clarifier with reverse osmosis plant is proposed which will enhance recycling of process water thereby no additional fresh water will be required for proposed expansion.

(viii) AVAILABILITY OF WATER ITS SOURCE, ENERGY /POWER REQUIREMENT AND SOURCE SHOULD BE GIVEN.

A. Water requirement:

Total water requirement after expansion will be restricted to existing authorized quantity of 14000 cum/d. Source of the water is/ will be Tidi dam (surface water). Break up for water requirements will be as follows: Mining: 2400 KLD, Beneficiation Process: 8600 KLD and Domestic Use: 3000 KLD.

The permission for water from Tidi Dam has been attached as Annexure XII

Ground water intersected during mining activities shall be dewatered and recycled for process use etc. Application for renewal of NOC has been submitted to CGWA on 10.06.2021 attached as Annexure XIII.

A. Power requirement:

Existing power requirement for this project is 33 MW. Total power requirement after expansion will be 45 MW which will be sourced from captive 90MW CPP/ state grid.

Fuel requirement will be 60 KL per day which will be sourced from oil companies.

Details of Emergency DG Set required are as follows:

Existing: 6 MWx1, 24 KVx1, 500 KWx1, 250KWx1

Additional Proposed: 6 KVA (1500 KVx1, 750 KVx2, 500KVx6)

(viii) QUANTITY OF WASTE TO BE GENERATED (LIQUID AND SOLID) AND SCHEME FOR THEIR MANAGEMENT/DISPOSAL

During mining waste rocks are generated. 1.28 MTPA waste rock will be generated during plan period. Out of which 1.22 MTPA waste rock will be disposed to Underground voids. 0.055 MTPA waste rock will be used for tailing storage facility (TSF) construction. 0.005 MTPA waste rock will be used for Surface Levelling for infrastructure. Topsoil generated due to infrastructure creation will be used for plantation activities.

At conceptual, 10.89 MT waste will be generated. Out of which 10.00 MT will be backfilled to Underground voids. 0.35 MTPA waste will be used for TSF construction and 0.54 MT waste for Surface Leveling for infrastructure.

Tailing is a major waste material generated from beneficiation plant. Tailing is transported to Dry tailing plant where water is separated from tailings and dry tailing cake and is disposed in Tailing storage facility.

In order to utilize the tailing, paste fill and hydro fill plant have been set up for underground mine void filling. Alternatively, for gainful utilization of tailing, studies have been conducted by CSIR-CRRI (Central Road Research Institute) wrt utilization of tailing in road construction. The studies have indicated its suitability for various

options for road construction. Efforts will be made for its utilization in road construction activities.

Particulars	Mine	UoM	21-22	22-23	23-24	24-25
Mine Development - Waste Generation	Mochia	MT	409000	395000	421000	446000
	Balaria	MT	292000	292000	292000	292000
	Zmala	MT	82000	86000	88000	91000
	Baroi	MT	414000	429000	457000	457000
	Total - Zawar	MT	1197000	1202000	1258000	1286000
Waste disposal to UG voids	Mochia	MT	399000	385000	411000	436000
	Balaria	MT	282000	282000	282000	282000
	Zmala	MT	79000	83000	85000	88000
	Baroi	MT	377000	392000	420000	420000
	Total - Zawar	MT	1137000	1142000	1198000	1226000
Waste to tailing storage facility construction	Mochia	MT	5000	5000	5000	5000
	Balaria	MT	10000	10000	10000	10000
	Zmala	MT	3000	3000	3000	3000
	Baroi	MT	37000	37000	37000	37000
	Total - Zawar	MT	55000	55000	55000	55000
Waste to use for surface leveling for infrastructure	Mochia	MT	5000	5000	5000	5000
	Balaria	MT	-	-	-	-
	Zmala	MT	-	-	-	-
	Baroi	MT	-	-	-	-
	Total - Zawar	MT	5000	5000	5000	5000

The hazardous wastes are handled/ shall continue to be handled in compliance with the HWM rules. All hazardous wastes are stored in covered drums/tanks/covered sheds before sale or disposal to registered vendors. The hazardous wastes generated are Waste Oil, Used Oil, Sodium Cyanide Drums and Residues from Haz chemicals.

The hazardous wastes generation will be as follow after expansion: 700 MT/ annum of used oil, 100 MT/ annum of Waste Oil, 1460 nos/ annum of empty Sodium Cyanide Drums & hazardous chemical drums and 0.3 MT/ annum of chemical containing residues from Haz chemicals.

S. No.	Type of Hazardous Waste	Category		Existing Authorized Quantity	Proposed quantity after expansion	Hazardous waste disposal practice
		Sch	Code			
1	Empty barrels/containers/liners contaminated with hazardous chemicals/wastes	I	33.1	800 Nos / Annum	1460 nos/ annum	CTDF Udaipur
2	Chemical-containing residue arising from decontamination	I	34.1	0.20 MTA	0.30 MT/annum	Reuse in process
3	Used or spent oil	I	5.1	400MT	700MT/annum	Sold to registered recycler
4	Wastes or residues containing oil	I	5.2	100.00 TPA	100 MT/annum	Sold to registered recycler

4.0 Mine Details

A) Mochia Mine

Mochia mine lenses are classified into four sections namely Central Mochia (CM) lenses(6500 -5300 Dep), CW-0 lens (4000 -4900 Dep), CWM series lenses (5300 to 4900 Dep) and Narrow vein lenses in West Mochia (5000 to 4000 Dep). All the four sections have discrete lenses, which are overlapping as well as spread in strike length. These sections consist of various small lenses like –Central Mochia (CM) – Lens 1, Lens 2, 1N2, 1N1, 2N1, 2WS, 2W, 2WS Ext.N, 2WS Ext.S, S11, S10, S9, S8, N-6(M), N-5(M) lens , CW-0 Lens, – CW-0 lens and CWM Series Lens (CWM) – CWM1, CWM2, CWM3, CWM4, CWM5, 3N1, 3N2 lens Narrow vein Lens (NV) – Sympathetic narrow lenses in West Mochia area.

1. Mode of entry:

Area	Typ	Purpose	Level Entries
Central Mochia	Shaft[395 to(-)58mRL] Rectangular[5.2mx3.	Man, material and ore hoisting	Level entries at 307, 240, 173, 106, 39,

West Mochia	Adit at 452m RL & UG shaft [452 to 25m RL] Rectangular [3.25m x 2.9m] Circular [3.8m dia below 395m RL]	Man & material hoisting	Level entries at 413, 370, 312, 252, 192, 132, 57 & 4
Mochia Portal	Mochia-Balaria Portal [6.5m x 5.5m_407m RL] Decline [5.5m x 5m_407 to	Man, material and ore hoisting	Level entries at 312, 192, 132, 57m RL

2. Conceptual growth plan from 2025-26 to 2029-30 – Mochia Mine

Mochia		25-26	26-27	27-28	28-29	29-30
Ore Production	MT	2300000	2300000	2300000	2300000	2300000
Mine Development	MT	19600	19600	19600	19600	19600
Exploratory Drilling	MT	60000	60000	60000	60000	60000
Waste Generation	MT	446000	446000	446000	446000	446000
Waste Disposal- RF/CRF	MT	269000	269000	269000	269000	269000
Waste Use-Surface	MT	10000	10000	10000	10000	10000
Void Backfilling- RF/CRF	Cu.m	149000	149000	149000	149000	149000
Void Backfilling- Tailing	Cu.m	244000	244000	326000	326000	326000

- Life of Mine:** Considering UNFC reserves (11.2 Mt) the mine life comes to 6 years exploration has proven the existence of ore body upto (-)925mRL (which are still open at depth). Equivalent mineable reserves are 23.6Mt and the life of mine is estimated to +15 years. 21 Mt is planned for production during 2020-21 to 2029-30 upto depth of (-)600mRL and relevant investment for capacity enhancement is in place.
- Ore Drawl, Crushing & Hoisting:** Central Mochia ore hoisting system (OHS) has a capacity of 1800 TPD operating common for Mochia & Balaria mine. The Mochia COB connection has been done with ramp, hence Mochia mine became completely trackless mine. Ore hauled through central Mochia ramp is dumped the ore in coarse ore bin (800T capacity) for primary crushing in underground. The primary crusher is situated at the bottom of coarse ore bin (9thA level, 3 mRL). This is "MBE" RBDT Jaw Crusher driven by 220 KW motor having crushing capacity of 200 - 250 tph.

From fine ore bin crushed ore is fed to the conveyor by vibratory feeder for its transport to measuring bin of Skip hoisting system. By Skip (Pay load 8.4t) ore is hoisted to surface bunker and fed on BC-2 and BC-3 belt conveyor by reciprocating feeder for ultimate discharge to Mochia stock-pile situated on surface at the beneficiation plant.

West Mochia ore hoisting is being done through Decline using 20T/30T/60T LPDT and has capacity of more than 2.0 Mtpa and primary crushing being done at Surface.

The primary crushed ore is being dumped into Mill stock pile through Belt conveyor system. The mine is having adequate capacity of ore handling system for proposed production.

B) Balaria Mine:

Balaria mine lenses are classified into five sections namely Northern lens, Eastern lens, Western lens, S-Series lens and N-Series lens.

These sections consist of various small lenses like –

Northern Lens – 1NA, 1N, 2N, 4N, 5N, 6N lens

Eastern Lens – 2E, 2E(N), 3E, 3E(N), 5E, 5E(N), 8E, 9E, 10E lens

Western Lens – 1W, 2W, 2W(N), 3W, 4W, 5WA, 5WB, 7W, 8W, 9W, 10W, 11W, 11W(N) lens

S-Series Lens – S1, S2, S3, S4, S5, S6, S7, S8 lens

N-Series Lens – N-1, N-1(E), N-2, N-3, N-4, N-5, CP, CP-1, CP-2 lens

1. Mode of Entry

Area	Typ	Purpose	Level Entries
Central Balaria	Adit 4 at 378m RL & UG Shaft [378 to (-)50m RL] Circular [3.6m Dia.]	Man & material	Level entries at 314, 250, 190, 120, 105
Western Balaria	Production Incline [387 to 56m RL] 1 in 3.5 Grade Rectangular [3.4m x 2.3m]	Ore Hoisting & Second outlet	Level entries at 250, 105 & 45m RL
Western Balaria	Decline from Surface (407m RL) at 1 in 7 Grade Cross Section [5.5m x 5.0m]	Ore hoisting, Men & material	Decline entry at 407m RL

2. Conceptual plan from 2025-26 to 2029-30

Balaria		25-26	26-27	27-28	28-29	29-30
Ore Production	MT	1500000	1500000	1500000	1500000	1500000
Mine Development	MT	14600	14600	14600	14600	14600
Waste Generation	MT	279000	279000	279000	279000	279000
Waste backfilling	MT	269000	269000	269000	269000	269000
Waste Use-Surface	MT	10000	10000	10000	10000	10000

3. Life of mine

Considering UNFC reserves (2.4Mt) the mine life comes to 2.2 years but as surface exploration has proven the existence of ore body upto (-)940mRL (which are still open at depth).). 13.73 Mt is planned for production during 2020-21 to 2029-30 upto depth of (-)400mRL and relevant investment for capacity enhancement is in place.

4. Ore drawl, Haulage and Hoisting

Broken ore from stope is loaded into LHDs & dumped into LPDT directly / through ore pass for hauling to COB. Ore from (-)40mRL / (-)25mRL/(-)105mRL/(-)200mRL/(-)400mRL is being hauled through UG ramp to 120mRL using 20T LPDT and feed to COB for hoisting.

The production incline is extended from 56 mRL to surface stockpile in Phase-I & Phase II. At 120mRL the ore is dumped in coarse ore bin (1200 t capacity) for primary crushing in underground. The primary crusher is situated at 75mRL (bottom of coarse ore bin). Crushed ore from fine ore bin is fed to conveyor by vibratory feeder for its transport to surface stockpile through production incline.

C) Zawarmala Mine

Zawarmala mine lenses are classified into four sections namely Central zone, where mining is continuing and Eastern lens, Western lens at upper horizon and South Zawarmala.

1. Mode of entry

Area	Type	Purpose	Level Entries
Zawarmala	Adit at 430mRL [4mx3m] followed by- 1)UG shaft [466 to 165mRL] Circular [5.0m Dia.] 2) Ramp [430 to (-)55mRL] [4.2mx3.3m-1 in 8 / 1 in 7 gradient]	Man & material and ore hoisting Man & material and ore hoisting	Level entries at 433, 355, 300, 250, 225, 200 & 173 mRL Level entries at 355, 300, 250, 200, 173, 80, 35, (-)5 & (-)30mRL and various sub-levels.

2. Zawarmala conceptual plan from 2025-26 to 2029-30

		25-26	26-27	27-28	28-29	29-30
Ore Production	MT	700000	700000	700000	700000	700000
Mine Development	MT	5000	5000	5000	5000	5000
Waste Generation	MT	86000	86000	86000	86000	86000
Waste backfilling	MT	83000	83000	83000	83000	83000
Waste Use-Surface	MT	3000	3000	3000	3000	3000

3. Life of mine: Considering UNFC reserves (4Mt) the mine life comes to 7.8 years but as surface exploration has proven the existence of ore body upto (-)235mRL (which are still open at depth). Equivalent mineable reserves are 5 Mt and the life of mine is estimated to +9 years. 6.2 Mt is planned for production during 2019-20 to 2029-30 upto depth of (-)330mRL and relevant investment for capacity enhancement is in place.

4. Ore drawl, Haulage & Hoisting:

Zawarmala mine has 0.6 Mtpa Loco haulage and shaft hoisting capacities. The mine has ramp access for trackless mining extending from 430mRL to bottom most level (-)84mRL (gradient 1 in 7 & 1 in 8) and is being utilized for man, material, waste handling

& ore transport to COB.

One each Conventional and Koepe winder are installed at Zawarmala mine shaft for ore and man & material hoisting. John Wood make 560 HP Drum winder having capacity of 100TPH is used for skip (4 MT pay load) hoisting which is used for ore hoisting (0.6 Mtpa capacity) from underground to 446mRL. Venot&Cie make 70 HP koepe winder is used for cage (2MT capacity) hoisting which is used for man & material hoisting from &

to the underground. Addition to that baroi- Zawarmala connection decline with bigger size has been planned which will enhance the production capacity of mine upto 0.7Mtpa from FY 2022-23. The mine shall be having adequate capacity of ore handling system for proposed production.

D) Baroi Mine:

Baroimine lens are classified into five sections namely South Baroi, BK-Series lens (Central Baroi), K-Series lens, North Baroi lens & Haran Magra. These sections consist of various small lenses like –

BK-Series (BK) – BK-1, BK-2, BK-3, BK-4, BK-5 lens

K-Series (K) – K-1, K-2, K-3, K-4, AK-1 lens

North Baroi (NB) – 1W, 2W, 1C, 2C, 3C, 1E, 2E,3E Lens & few uncorrelated zones

Haran Magra (HM) – HME1, HME2, HME3, HMW1, HMW2 lens

South Baroi

If any new orebody found during exploration, it shall be considered for detailed exploration, development and stoping. Those lenses shall also be considered for stoping to maximize ore recovery keeping in point of view with mineral conservation.

1. Baroi conceptual plan from 2025-26 to 2029-30

Baroi		25-26	26-27	27-28	28-29	29-30
OreProduction	MT	200000	200000	200000	200000	200000
MineDevelopment	MT	21900	21900	21900	21900	21900
WasteGeneration	MT	379000	379000	379000	379000	379000
WasteBackfilling	MT	440000	440000	440000	440000	440000
WasteUse-Surface	MT	37000	37000	37000	37000	37000

2. Life of Mine

Considering UNFC reserves (2.7Mt) the mine life comes to 4 years but as surface exploration has proven the existence of ore body upto (-)350mRL (which are still open at depth). Equivalent mineable reserves are 15.1Mt and the life of mine is estimated to +10 years, which shall further built-up with ongoing surface exploration. 16.5Mt is planned for production during 2019-20 to 2029-30 upto depth of (-)100mRL and relevant investment for capacity enhancement is in place.

3. Ore drawl, Haulage and Hoisting:

Ore from stope is loaded by diesel LHD and dumped directly / through ore pass into LPDT. Central Baroiramp is being used for transporting ore from underground to Central Baroi surface using 20T LPDT. North Baroi Main Decline is being used for

transporting ore from underground to North Baroi surface using 60T/30T/20T LPDT. Decline & Ramps are further getting down at Central Baroi, North Baroi& K-Series section for extracting lower level lenses.

After Primary crushing at North Baroi / Central Baroi surface, the ore is being transported to Beneficiation plant using 20 – 35 MT surface trucks.

Personnel carrier is being used for transporting the manpower to working levels.

5.0 Site Analysis

i. CONNECTIVITY

- SH – 32 (~3.5 Km in ENE) and NH- 48 passing though Block-I
- The nearest town is Zawar.
- The nearest railway station is Zawar Railway station (NE)
- The nearest airport is Maharana Pratap Airport At a distance of ~32 Km in NE direction.
- The site is well connected with communication facilities like telephone, post office, police station and educational facilities, hospitals etc.

ii. LAND-FORM, LAND USE AND LAND OWNERSHIP

The total mining lease area is 3620ha which spreads in village Zawar& falls in forest land of 1537.91 Ha.

S. No.	Land use	Pre-Operational	Operational (Ha)		Post-Operational (Ha)
			Existing	Post Expansion	
1	Irrigated Agricultural land	155.35	155.35	155.35	155.35
2	Un-irrigated Agricultural land	128.94	128.94	128.94	128.94
3	Grazing Land	59.84	59.84	59.84	59.84
4	Settlement	99.75	99.75	99.75	149.75
5 A	Barren land (Govt.)	1529.09	1160.8	1160.8	1160.8
5 B	Barren Land (HZL)	--	66.86	66.86	66.86
6	Industrial/ Mining Use	--	245.52	303.32	0
7	Green Belt	--	170.85	182	251.43
8	Forest Land	1537.91	1422.97	1354.02	1537.91
9	Water Bodies	90.97	90.97	90.97	90.97
10	River Sand	18.15	18.15	18.15	18.15

Total	3620	3620	3620	3620
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iii. TOPOGRAPHY

The lease area falls on Survey of India GT sheet no. 45 H/11 & 15 and southern side of Udaipur district. The Zawar group of mines lease area consisting hilly terrain of variable heights ranging from 350mRL to 600mRL and marked by rugged and hilly terrain, dominated by steeply dipping outcrops and small valleys carved by the networks of ephemeral streamlets and streams. The drainage pattern is sub-dendretic to dendretic. The general slope of the area is from west to east and north-west to south-west. In the northern and western part of the area, there are some high peaks of the hills. The south-eastern part has comparatively lower elevation having lowest elevation, i.e., at Khakhadara. The major part of these hilly area is under forest cover. The total leasehold area (3620 Ha) is divided in two blocks – Block 1 & Block 3. The details of general RL is given below –

Block	Lease Area	Minimum RL	Maximum RL
Block -I	3172	345	695
Block-III	448	410	540

iv. EXISTING LAND USE PATTERN (AGRICULTURE, NON-AGRICULTURE, FOREST, WATER BODIES (INCLUDING AREA UNDER CRZ)), SHORTEST DISTANCES FROM THE PERIPHERY OF THE PROJECT TO PERIPHERY OF THE FORESTS, NATIONAL PARK, WILD LIFE SANCTUARY, ECO SENSITIVE AREAS, WATER BODIES (DISTANCE FROM THE HFL OF THE RIVER), CRZ. IN CASE OF NOTIFIED INDUSTRIAL AREA, A COPY OF THE GAZETTE NOTIFICATION SHOULD BE GIVEN.

- Total mining lease area is 3620ha.
- There is no National Park, Migratory routes of fauna and National Monuments within 10Km periphery of the lease area and same has been authenticated by DCF, Udaipur vide letter no F.9 (10) Survey/DCFWL/Udr/2016-17/11715 dated 29.11.2016 and same is enclosed as Annexure IV.
- Jaisamand Wildlife Sanctuary is situated at 10.9 km from the boundary of the mine lease area.
- Details of Environmental settings around the mine site are given in the table below:

Table - 10
Environmental Settings of the Area

S. No	Particulars	Details		
		Name	Distance and Direction (From Block-I)	Distance and Direction (From Block-III)
1.	Nearest State/National Highway	<ul style="list-style-type: none"> ➤ SH-32 ➤ NH- 48 	<ul style="list-style-type: none"> ~3.5 km in ENE passing though Block-I 	<ul style="list-style-type: none"> ~16.25 km in NE passing though Block-III
2.	Nearest Railway Station	<ul style="list-style-type: none"> ➤ Zawar Railway station ➤ Kharwachanda Railway station ➤ Padla Railway station 	<ul style="list-style-type: none"> within block-I ~7.5 km in NE ~7.5 km in ESE 	<ul style="list-style-type: none"> ~14 km in NNE ~ 27 km in NNE ~12 km in NE
3.	Airport	Maharana Pratap Airport at a distance	~32 Km in NNE direction.	~46.5 Km in NNE direction.
4.	Nearest Town / City	Udaipur city	~20 km in North direction	~38 km in North direction
5.	Ecological Sensitive Areas (Wild Life Sanctuaries, National parks, biosphere reserves) within 10km radius study area	None		
6.	Reserved / Protected Forest within 10 km radius study area	Name	Distance and Direction (From Block-I)	Distance and Direction (From Block-III)
		Zawar singatwara Block B PF	Within the block – I	~12.5 km in NNE
		Zawar singatwara Block C PF	Within the block –I	~10 km in North
		Zawar singatwara Block A PF	Adjacent in NNE	~15 km in NNE
		Khajuri Block E PF	Adjacent in NW	~15 km in North
		Khajuri Block C PF	~1.0 Km in WNW	~14.5 km in NNW
		Paduna Block PF	~1.0 km in South	~6.0 km in North
		Paduna Block PF	~1.5 km in SW	~6.0 km in NNW
		Babarmal Block B PF	~1.5 Km in NE	~16.5 km in NNE
		Dingri RF	~1.5 km in ESE	~9.0 km in NE
		Samar Block A PF	~2 km in North	~18 km in North
Reserved Forest	~2.5 km in SW	~8.0 km in NNE		

		Jabla Block A PF	~3.0 km in SW	~6.5 km in NW
		Samar Block B PF	~3 Km in NW	~18 km in NNW
		Babarmal Block B PF	~4.0 Km in NNE	~19 km in NNE
		Polodra RF	~4.0 Km in ENE	~17.25 KM NE
		Khajuri Block B PF	~5 Km in WNW	~19.5 km in NNW
		Khajuri Block A PF	~5.5 Km in WNW	~19.5 km in NW
		Dingri RF	~6.0 km in SE	~8.5 km in NE
		Sera Block PF	~7.0 km in WSW	~13.5 km in NW
		Polodra RF	~7.0 Km in East	~15.75 km in ENE
		Reserve forest	~7.0 Km in NW	~22 km in NNW
		Chanavda Block RF	~7.0 km in SSE	~2.5 km in NE
		Babarmal Block A PF	~7.5 Km in NNE	~24 km in NNE
		Reserve forest	~8.0 Km in NNE	~24 km in NNE
		Khajuri Block D PF	~9.0 Km in WNW	~17.5 km in NW
		Parshad RF	~11.5 km in SSE	~2.0 km in ESE
		Reserve forest	~13 km in SSW	~2.0 km in SW
		Rikhabdev C PF	~18.5 km in S	~8.0 km in SE
7.	Nearest water bodies	Name	Distance and Direction (From Block-I)	Distance and Direction (From Block-III)
		Tiri Nadi	Within the block-I	~14.5 km in NNE
		Chandani Nala	~2.5 Km in NNW	~17.5 km in North
		Tidi Dam	~3.0 km in WSW	~10.0 k in NNW
		Daiya Nadi	~6.5 Km in East	~15 km in NE
		Pareri Nadi	~11 km in South	Passing through Block-III
		Thorghati Talav	~16 km in SSE	7.5 km in ESE
		Nal Nadi	~19 km in SSW	~8.5 Km in SW
8.	Seismic Zone	Zone – II as per IS: 1893 (Part-I) : 2002		

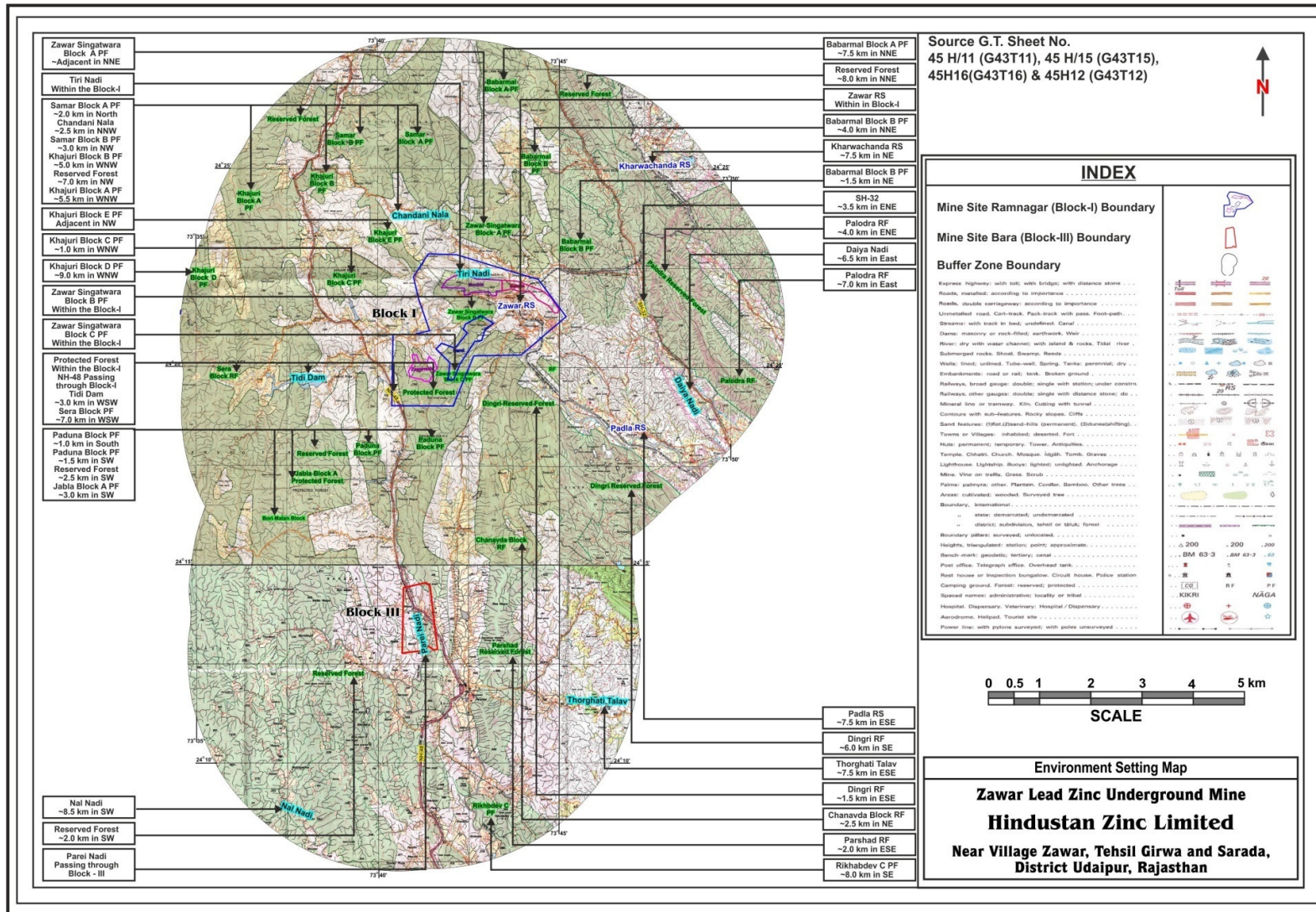


Figure 4: Map showing 10 Km Radius of Mining Lease Area

v. EXISTING INFRASTRUCTURE

This is an expansion in Ore (Lead-Zinc) Production capacity and expansion will be carried out within the existing Mining Lease area. Hence, existing infrastructure facilities will be used.

vi. SOIL CLASSIFICATION

The type of soil mainly observed is clay loam and red clay.

vii. CLIMATIC DATA FROM SECONDARY SOURCES

The climate of the area is semi-arid. Extreme temperatures are experienced during summer and winter seasons. The maximum temperature during summer goes up to

44.6°C and the minimum temperature during winter falls below 1.9°C. The average annual rain fall goes to 650mm level. Predominant wind direction is SW-NE, generally wind blows with a velocity of 10-12 Kms/hr in all seasons. Relative humidity varies from 50% to 95%.

viii. SOCIAL INFRASTRUCTURE AVAILABLE

The site is well connected with social infrastructure facilities like medical, post office, schools, market, football academy, residential colonies etc. and as such no constraints are envisaged in this aspect.

6.0 PLANNING BRIEF

(i) PLANNING CONCEPT (TYPE OF INDUSTRIES, FACILITIES, AND TRANSPORTATION ETC.) TOWN AND COUNTRY PLANNING/DEVELOPMENT AUTHORITY CLASSIFICATION.

- Hindustan Zinc Ltd is proposing expansion in Ore (Lead- zinc) Production Capacity from 4.8 Million TPA to 6.5 Million TPA and Ore Beneficiation from 4.8 to 6.5 MTPA in Zawar Underground Mines (ML Area - 3620 ha) at Villages- Zawar, Tehsil: Girwa and Sarada District- Udaipur, Rajasthan.
- Lead and Zinc concentrates are sent to Dariba / Chanderiya Lead and Zinc Smelters for smelting. The concentrates so produced are sent to respective smelters through road transport.

(ii) POPULATION PROJECTION

Manpower required will be engaged from nearby areas. No significant influx of people is anticipated in the area.

(iii) LAND USE PLANNING

The total mining lease area is 3620ha which spreads in village Zawar & falls in forest land of 1537.91 Ha. Following additional forest land of 68.95 ha is being diverted for various purposes as follows:

S.No	Proposed Infrastructure	Forest Area (Ha)
1.	Proposed Ore Beneficiation Plant	14.36
2.	New Tailing Storage Facility	29.87
3.	Proposed Mine Surface Infrastructure	5.94
4.	Expansion of Existing Tailing Storage Facility	18.78
Total Area		68.95

(iv) ASSESSMENT OF INFRASTRUCTURE DEMAND (PHYSICAL & SOCIAL)

HZL has estimated the demand of infrastructure (Physical & Social) in the nearby area of the mines and appropriate developmental activities are being undertaken under corporate social responsibilities for various rural developmental programs and initiatives for the upliftment of the nearby communities from time to time. HZL will continue its efforts for developing/strengthening of surrounding infrastructure for welfare of locals.

(v) AMENITIES/FACILITIES

Hindustan Zinc Ltd (HZL) has developed/ will develop the Amenities/Facilities in the nearby area of the project site as per requirement of local people the nearby area under corporate social responsibilities programs.

7.0 PROPOSED INFRASTRUCTURE

(i) INDUSTRIAL AREA (PROCESSING AREA)

Following infrastructures will be enhanced in the expansion

- i. Debottlenecking of existing mill from 4.8 Mtpa to 5.3 Mtpa
- ii. Establishment of new beneficiation plant of 2.0 Mtpa
- iii. Ore production capacities will be progressively expanded as per proposed Mining Plan for New mine openings for access, ventilation and exploration.
- iv. New tailing storage facility
- v. New material handling system from existing dry tailing plant to new tailing storage facility.
- vi. Addition of new dry tailing plant

vii. New backfill plant

(ii) **RESIDENTIAL AREA (NON-PROCESSING AREA)**

Suitable colony with all facilities has been provided, which is common for plant and mines. Operational workers from local villages will be engaged, additional workmen requirement will be sourced from local villages. Additional buildings shall be constructed in the existing colony infrastructure.

(iii) **GREEN BELT**

- Till date, plantation has been carried out in an area of 170.85 Hectares at various places in Zawar mines. Old waste dumps have been rehabilitated.
- The species planted area Neem, Kaner, Gulmohar, Karanj, Sheesam and Casaea as these are capable of surviving in semi arid climatic condition. The survival rate is around 70-80%. Regular maintenance of plants are carried out. Further, present Tailing storage facility which is in active use will be stabilized by vegetative cover, when it will have its full capacity of tailing storage.

(iv) **SOCIAL INFRASTRUCTURE**

The expansion project will result in growth of the surrounding areas by increased direct and indirect employment including ancillary development and supporting infrastructure.

(v) **CONNECTIVITY**

- SH – 32 (~3.5 Km in ENE) and NH- 48 passing through Block-I
- The nearest town is Zawar.
- The nearest railway station is Zawar Railway station (NE)
- The nearest airport is Maharana Pratap Airport At a distance of ~32 Km in NE direction.
- The site is well connected with communication facilities like telephone, Post office & Banking facility.

(vi) **DRINKING WATER**

Drinking water requirement is/ will be sourced from Tidi Dam. Existing infrastructure is sufficient to cater post expansion requirements.

(vii) **SEWERAGE SYSTEM**

Sewerage network is in place. As existing sewerage network is old, the same is being and shall be revamped at places. We have sewerage treatment plant (150 KLD and 300 KLD) to treat the sewage water and the same is being used for plantation, horticulture and other use. Existing STPs shall also be revamped progressively to accommodate any increase in sewage generation.

(viii) **Industrial Waste Management**

Tailing is a major waste material generated from beneficiation plant. Tailing is transported to Dry tailing plant where water is separated from tailings and dry tailing cake having moisture around 15% is disposed in Tailing storage facility.

In order to utilize the tailing, paste fill and hydro fill plant have been set up for underground mine void filling. Alternatively, for gainful utilization of tailing, studies have been conducted by CSIR-CRRI (Central Road Research Institute) wrt utilization of tailing in road construction. The studies have indicated its suitability for various options for road construction. Efforts will be made for its utilization in road construction activities.

The hazardous wastes are handled/ shall continue to be handled in compliance with the HWM rules. All hazardous wastes are stored in covered drums/tanks/covered sheds before sale or disposal to registered vendors. The hazardous wastes generated are Waste Oil, Used Oil, Sodium Cyanide Drums and Residues from Haz chemicals. The hazardous wastes generation will be as follow after expansion: 700 MT/ annum of used oil, 100 MT/ annum of Waste Oil, 1460 nos/ annum of empty Sodium Cyanide Drums & hazardous chemical drums and 0.3 MT/ annum of chemical containing residues from Haz chemicals.

(ix) **Solid Waste Management**

Apart from above, during mining waste rocks are generated. 1.28 MTPA waste rock will be generated during plan period. Out of which 1.22 MTPA waste rock will be disposed to Underground voids. 0.055 MTPA waste rock will be used for tailing storage facility construction. 0.005 MTPA waste rock will be used for Surface Levelling for infrastructure. Topsoil generated due to infrastructure creation will be used for plantation activities.

(x) Requirement and Source

Existing power requirement for this project is 33 MW. Total power requirement after expansion will be 45 MW which will be sourced from captive 90MW CPP and alternatively from state grid.

We have an emergency DG set in place to meet any emergency requirement this includes 1x6 MVA, 1x0.024 MVA, 1x0.5 MVA, and 1x0.25 MVA. Additional DG sets of total 6 MVA capacity (1x1.5 MVA, 2x0.75 MVA, 6x0.50 MVA) capacity for emergency use are proposed. Fuel requirement will be 60 KL per day which will be sourced from oil companies.

8.0 Rehabilitation and Resettlement (R & R) Plan

(i) POLICY TO BE ADOPTED (CENTRAL/STATE)IN RESPECT OF THE PROJECT AFFECTED PERSONS INCLUDING HOME OUSTEES, LAND OUSTEES AND LANDLESS LABORER (BRIEF OUTLINE TO BE GIVEN)

This is an existing mine. All the statutory clearance will be obtained for expansion of project. As there is no inhabitation in the area, therefore, no R&R is envisaged.

9.0 Project Schedule and Cost Estimated

(i) Likely date of start of construction and likely date o completion

Expansion in Ore Production capacity will be done after obtaining all clearance and consents from concerned authorities.

- a. Debottlenecking of existing mill from 4.8 Mtpa to 5.3 Mtpa by Mar-22
- b. Establishment of new beneficiation plant of 2.0 Mtpa from Jul-22 to Jun-23
- c. Ore production capacities will be progressively expanded as per proposed Mining Plan

(ii) Estimated project cost with analysis in terms of economic viability of the Project

- o Total cost of the Project is: Rs.1250 crore
- o Capital cost for EMP –Rs. 120crore

10.0 Analysis of Proposal

This expansion project will result in growth of the surrounding areas by increasing direct and indirect employment in the region including ancillary development and supporting infrastructure.

No major adverse effect on environment is envisaged as the required mitigation measures will be inbuilt in the project.





राजस्थान RAJASTHAN

AC 881942

::- पूरक संविदा -::

यह स्टाम्प क्रमांक: 2030 दिनांक 01-7-2016 रूपया 100/- (अक्षरे रूपया सौ मात्र) वास्ते खनन पट्टा अवधि वृद्धि की पूरक संविदा के क्रम में सर्वश्री हिन्दुस्तान जिंक लिमिटेड, यशद भवन, स्वरूप सागर, उदयपुर (राज०) के पक्ष में स्वीकृत खनन पट्टा के निमित्त है।

चूंकि शासन आदेश क्रमांक प.12(26)खान/मुप-2/1990 दिनांक 20-10-1992 एवं आदेश क्रमांक प.17(12)खान/मुप-1/99 दिनांक 03-8-1999 के द्वारा खनन पट्टा वास्ते खनिज लोड, जिंक व सिल्वर, निकट ग्राम जावर, ताहसील सराड़ा, जिला उदयपुर में क्षेत्र 5178 हैक्टेयर का द्वितीय नवीनीकरण अवधि दिनांक 30-3-1990 से 29-3-2010 तक के लिए स्वीकृत किया गया।

अधीक्षण खनि अभियन्ता, उदयपुर वृत्त, उदयपुर के आदेश क्रमांक 155 दिनांक 15-3-2000 के द्वारा क्षेत्र 1558.00 हैक्टेयर (678.88 हैक्टेयर वन क्षेत्र एवं 879.12 हैक्टेयर राजस्व भूमि) का अध्यापण स्वीकृत किया गया। वर्तमान में उक्त खनन पट्टा में क्षेत्र 3620 हैक्टेयर (ब्लॉक संख्या 1 कुल क्षेत्र 3172 हैक्टेयर तथा ब्लॉक संख्या 3 में 448 हैक्टेयर) स्वीकृत होकर प्रभावशील है, जिसमें से वन क्षेत्र 1537.91 हैक्टेयर है, जिसके अनास्क्षण की स्वीकृति वन एवं पर्यावरण मंत्रालय, भारत सरकार द्वारा आदेश दिनांक 23-1-2015 के द्वारा जारी की गई है।

पट्टाधारी द्वारा नियमानुसार उक्त खनन पट्टा की मूल अवधि समाप्ति से पूर्व तृतीय नवीनीकरण आवेदन-पत्र संख्या 323/2008 दिनांक 25-11-2008 को प्रस्तुत किया गया, जो कि एम.एम.डी.आर संशोधन अध्यादेश-2015 प्रभावी होने की दिनांक को

(R. Pandwal)
5/7/2016

(R. PANDWAL)
COMPANY SECRETARY
HINDUSTAN ZINC LTD.
YASHAD BHAWAN, UDAIPUR

(Signature)
खनि अभियन्ता
खान एवं भू-विज्ञान विभाग
उदयपुर खण्ड, उदयपुर

(Signature)
अधीक्षण खनि अभियन्ता
खान एवं भू-विज्ञान विभाग
उदयपुर वृत्त, उदयपुर (राज०)

7030 Hindustan Zinc Limited

पता श्री जालि उस क

वेधाली तसे श्री S.K.VASHISTH

पता Agreement दिवस गवा दिनांक

S.K. Vashisth
1-7-16

(S.K.VASHISTH)

1-7-16

VK
हस्ताक्षर विभाग
दि 01/07/2016

लम्बित था। एम.एम.डी.आर.(संशोधन) अध्यादेश, 2015 जिसमें धारा 8ए का समावेश किया गया है, जो कि खनन पट्टों की समयावधि से सम्बन्धित है। एम.एम.डी.आर. (संशोधन) अध्यादेश 2015 की धारा 8ए(ब) के अनुसार उक्त खनन पट्टे की अवधि दिनांक 31-3-2030 तक स्वतः बढ़ गई है, एवं उक्त खनन पट्टे की संविदा स्वतः ही उक्तानुसार संशोधित हुई मानी गई है। वर्तमान में उक्त खनन पट्टा दिनांक 31-3-2030 तक एम.एम.डी.आर., एम.सी.आर. तथा भारत सरकार/राज्य सरकार द्वारा समय-समय पर जारी विभिन्न परिपत्रों/निर्देशों के अध्यक्षीन प्रभावी रहेगा। खनन पट्टा की उक्त पूरक संविदा का निष्पादन आज दिनांक: 06-07-2016 को किया जाता है।


5/7/2016
(Rajendra Pandwal)

(PoA)
Signature Of The
Lessee

(R. PANDWAL)
COMPANY SECRETARY
HINDUSTAN ZINC LTD.
YASHAD BHAWAN, UDAIPUR

Signature Attested
By
खनि अभियन्ता
खान एवं भू-विज्ञान विभाग
उदयपुर खण्ड, उदयपुर



Witness No.1

Shri Gopal Singh Rathore
S/o Shri Mohan Singh Rathore
173/12, Ashok Nahgar, Udaipur


05/07/2016

श्री ग. प्रसाद
05/07/2016

Witness No.2

Shri Jagdish Prasad Jhanwar
S/o Shri Om Prakash Ji
C-63, Five Story Building Zawar Mines, Udaipur

Executed before me
& Identified by me

Signature
ATTESTED


7/7/2016
ARJUN UPADHYAYA
NOTARY, Dist. UDAIPUR

Signature
By order and on behalf of the
Governor of Rajasthan
(Designation)
अधीक्षक खनि अभियन्ता
खान एवं भू-विज्ञान विभाग
उदयपुर खण्ड, उदयपुर (राज.)

Grant order dated 13. 03.1973 for 1st renewal of lease (01.04.1970 to 29.03.1990)

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87

GOVERNMENT OF RAJASTHAN
MINES DEPARTMENT

No. F. 2(4) Khair/70 Jaipur dated the, 13 March, 1973

ORDER

Whereas M/s Hindustan Zinc Limited of Udaipur has applied for grant of renewal of Mining lease for Lead, Zinc and Silver under Rule 22(2) of Mineral Concession Rules, 1960 and whereas Government is satisfied that the applicant is a suitable party for the grant of the said concession under the relevant rules in force in the State;

And whereas the area for which the concession is desired is already with applicant,

Now, therefore, the Government with the approval of the Government of India is hereby pleased to grant renewal of Mining lease to the applicant on the following terms and conditions, besides those mentioned in Mineral Concession Rules, 1960 and as amended from time to time:-

Mineral.	Lead, Zinc and Silver.
Area.	20 (Twenty) Sq. miles near village Zewar in District Udaipur as per description report the area shown in the plan.
Period.	Twenty years from 1.4.1970.
Deadrent.	Rs. 37.50 (Thirty seven rupees and fifty paise) only per hectare per year.
Royalty.	1) Lead Ore : Seventy five paise per unit percent of metal per tonne of ore and on prorata basis. 2) Zinc Ore : One rupee per unit percent and zinc metal contained per tonne of ore and on prorata basis. 3) Silver : Twenty five rupees per Kg. of metal. 4) Cadmium : 5) Sulpher.
Security.	As per M.M.R. & D. Act, 1957, and amended from time to time.
Surface rent.	Rs. 1,000/- (Rupees one thousand only).
Other taxes.	Equal to land revenue on the surface actually used for mine purposes.
Other terms and conditions.	As per Government rules. As per Mineral Concession Rules, 1960 and M.M.R. & D. Act, 1957 and amended from time to time.

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- 58
- Note 1. This order shall stand revoked without notice if the grantee did not execute a proper agreement within six months from the date of this order.
- Note 2. The grantee shall not work in the area unless he has already executed proper agreement save when he is permitted to do so by a specific order of the Government issued in this behalf.

By Order,

Sd/
Asstt. Secretary to Government.

No. F.2(4) Khmiz/70

Jaipur dated the, 13 March, 73

Copy forwarded to the-

- 1) The Director, Mines and Geology, Rajasthan, Udaipur for information and necessary action and with reference to Directorate No. DMG/UD/F. 1(1)27/69/571 dated 24.3.1970.
- 2) The Accountant General, Rajasthan, Jaipur.
- 3) The Mining Engineer, Udaipur.
- 4) The Collector, Udaipur.
- 5) M/s Hindustan Zinc Limited, 6, Fatehpura, Udaipur.
- 6) The Controller, India Bureau of Mines, Nagpur.

Bedouin
Asstt. Secretary to Government.

Suresh/
9.3.1973.

21/3

(3)
ANNEXURE 3

क्र. 12[26]उत्तरांचल-2/90 उत्तरांचल, दिनांक : 20/10/92

- आदेश -

पुष्पि लैन्डिंग प्रोपर्टीज लिमिटेड ने प्रधान उमिन्न प्रियाया निवमावनी 1960 के नियम 24 प[1] के अन्तर्गत उमिन्न लैन्डिंग नि. प्र. जावर सशरीत सराहा जिला उत्तरांचल के अनुदान के निवे आदेशन किया है। और पुष्पि राज्य सरकार संयुक्त है कि आदेशन राज्य में दुर्लभता संरक्षित निवमावनी के उक्त प्रियाया के अनुदान के निवे उपयुक्त पक्ष [वाटर्] है।

और पुष्पि वह क्षेत्र जिससे निवे आदेशक द्वारा प्रियाया वाटरी गई है, अनुदान के निवे मुक्त है।

अतः उक्त राज्य सरकार प्रधान उमिन्न प्रियाया निवमावनी, 1960 जो कि समय-समय पर शीघ्रता रूप में, में उल्लेखित निवमावनी और प्रतिवमावनी के अतिरिक्त निवमावनी निवमावनी पर प्रियाया मशीनीकरण उमिन्न उमिन्न या अनुदान करती है :-

1.	उमिन्न	-	लैन्डिंग नि. प्र. जावर
2.	क्षेत्र	-	51.78 वर्ग कि.मी. नि. प्र. जावर सशरीत सराहा जिला उत्तरांचल में प्रियाया कर के अनुसार उपयुक्त भूमि पर वास्तविक सीमांकन पर निर्धारित होगी।
3.	अवधि	-	उक्त पट्टे की समाप्ति होने वाली तब तक 30.3.90 की तिथि से 10 वर्ष तक।
4.	प्रियाया भाटक	-	निवमावनी।
5.	प्रियाया की राशि	-	निवमावनी।
6.	अधिकृत	-	एम.एम.आर.डी. पट्ट, 1957 के विधुल-2 के अनुसार निर्धारित।
7.	भूतल भाटक	-	जो कि राज्य अधिगारी निर्धारित करें।
	अन्य शर्तें	-	1. प्रधान उमिन्न प्रियाया निवमावनी, 1960 पर एम.एम.आर.डी. पट्ट, 1957 तथा समय-समय पर शीघ्रता की उक्त अनुदान। 2. शीघ्रता निवमावनी के एवं उक्त प्रियायाय अक्षय नदी होने का प्रमाण-पत्र पेश करेगा। 3. उक्त क्षेत्र में जाने वाले 2216.80 हेक्टर क्षेत्र जाता है उक्त क्षेत्र अक्षय नदी की प्राप्ति है। वाटरी प्रयोग हो में ही उक्त क्षेत्र को।

प्रशासनिक विभाग
माया हुमा। विभाग
310C11974
04 प्रशासन

राष्ट्रीय कानून विभाग
में प्राप्त हुआ।
1 NOV 1992
क. सं. हुमा

खनि अभियन्ता
आन एच यू-विज्ञान विभाग
उदयपुर खण्ड, उदयपुर

A.K. Bhaumik
General Manager
Hindustan Zinc Ltd.
Zawar Mines

(C. SANKARAN)
Company Secretary
Hindustan Zinc Limited
Yashed Bhowan LD=HUR-313004

pa. Page-25

- (A) The lessee shall keep its workings restricted to the area already worked and cleared of forest till the requisite permission from the Central Govt. under the provision of the Forest Conservation Act, 1980 is received for working additional area within the lease held. Meanwhile the lessee will be liable to pay dead rent for the whole of the lease area.
- (B) The lessee shall restore the worked-out area of lease held to the satisfaction of the Director, Mines and Geology and shall grow such trees and plan and in such number over the land to restored as may be desired by DMO.
- (C) The lease will be liable to be determined if the lessee violates conditions (A) and (B) at any time.

नोट : यदि अनुवानी इस आदेश की तिथि से 6 माह की अवधि के भीतर सम्पूण खदानभंग, निष्पादित नहीं होगा तो यह आदेश बिना सूचना के ही प्रतिपादित कर दिया जायेगा।

आदेश से,
 जस्ता
 | राज्य दीक्षित |
 शासन उप सचिव

प्रतिनिधि :

- 118 सगुण गवा प्रसाधन [जान]
- 128 गवा प्रसाधन [विचार भाग] - गुणगर्भ एवं पित्त तर्क के लिए जिन अभियंता के अन्तर् में लागू करने के लिए।

[Signature]
 खान अभियन्ता
 खान एवं मू-विज्ञान विभाग
 बरबपुर खण्ड, जयपुर

[Signature]
 एन.सी. शर्मा
 गुज/गुर्भा
 सि.नि.नि., जयपुर

[Signature]
 (C. SANKARAN)
 Company Secretary
 Hindustan Zinc Limited
 Yashod Bhawan UDAIPUR-313004

[Signature]
 खान अभियन्ता
 (विभाग)

A.K. Bhaumik
 General Manager
 Hindustan Zinc Ltd.
 Znr. Jmgs

Amendment order dated 03.08.1999 for reduction of lease area from 5178 to 3620 Hect and validity renewal from 30.03.2000 to 29.03 2010

16/11/1999
 दिनांक - 6 AUG 1999

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राजस्थान सरकार
 जयपुर-1 विभाग

03 AUG 1999
 जयपुर, दिनांक:

क्रमांक: 99 17812/आन/एम-1/99

संबंधित आदेश:-

यहां विभाग के तद्विषय क्रमांक पं. 12826/आन/2/90 दिनांक 00.10.92 के मर सख्या-2 पर क्षेत्र " 51.73 वर्ग कि.मी." के स्थान पर " 36.20 वर्ग कि.मी." को मर सख्या -3 पर तद्विषय " 10 वर्ग " के स्थान पर " 20 वर्ग" प्रतिस्थापित किया जाता है।

महनीय,
 प्रमुख अधिकारी/आन/1

प्रतिनिहित निम्न को यूनियन को आवश्यक कार्यवाही हेतु प्रेषित है:-

1. निदेशक, आन एवं भूमिगत विभाग, राज-उदयपुर को उनके पत्रांक 973 दिनांक 1.9.99 ।
2. महादेवदास, राज-जयपुर ।
3. जिनाराम जीकर, उदयपुर ।
4. लक्ष्मीकांत धनि लक्ष्मीकांत, उदयपुर ।
5. लक्ष्मी लक्ष्मीकांत, उदयपुर ।
6. सचिव, जयपुर जयपुर जयपुर जयपुर, जयपुर ।
7. लक्ष्मी लक्ष्मीकांत लक्ष्मी लक्ष्मी, लक्ष्मी लक्ष्मी, उदयपुर ।
8. गार्ड फाइल ।

हस्ताक्षर
 अनुभागाधिकारी

आन/31.7.99

क्रमांक: खअ/उदय/सीसी-3/प्र/सराड़ा/323/08/3856 दिनांक: 26-2-2015

प्रेषित

मेसर्स हिन्दूस्तान जिंक लि.,
यशद भवन, स्वरूप सागर,
उदयपुर (राज.) ।

विषय:- एम.एम.डी.आर. अधिनियम, 1957 की धारा 8 ए में किये गये संशोधन के अनुसार खनन पट्टों की अवधि वृद्धि के सम्बन्ध में।

प्रसंग:- आपके पक्ष में धारित खनन पट्टा वास्ते खनिज जिंक, लैड एवं सिल्वर निकट जावर तहसील सराड़ा जिला उदयपुर के सम्बन्ध में।

महोदय,

उपरोक्त विषयान्तर्गत आपको सूचित किया जाता है कि हाल में एम.एम.डी.आर. (संशोधन) अध्यादेश, 2015 की धारा 8 ए का समावेश किया गया है, जो कि खनन पट्टों की समयावधि से सम्बन्धित है।

आपके पक्ष में धारित प्रासंगिक खनन पट्टे की अवधि दिनांक 29-3-2010 तक वैध थी, उक्त अध्यादेश जारी होने की दिनांक को खनन पट्टे का तृतीय नवीनीकरण आवेदनपत्र लम्बित था। एम.एम.डी.आर. (संशोधन) अध्यादेश, 2015 की धारा 8ए(5) के अनुसार उक्त खनन पट्टे की अवधि दिनांक 31-3-2030 तक स्वतः ही बढ़ गई है।

अतः आपके पक्ष में धारित उक्त खनन पट्टे की संविदा स्वतः ही संशोधित हुई मानी जाती है।

भवदीय,



(सतीश चन्द्र आर्य)
खनि अभियन्ता
उदयपुर

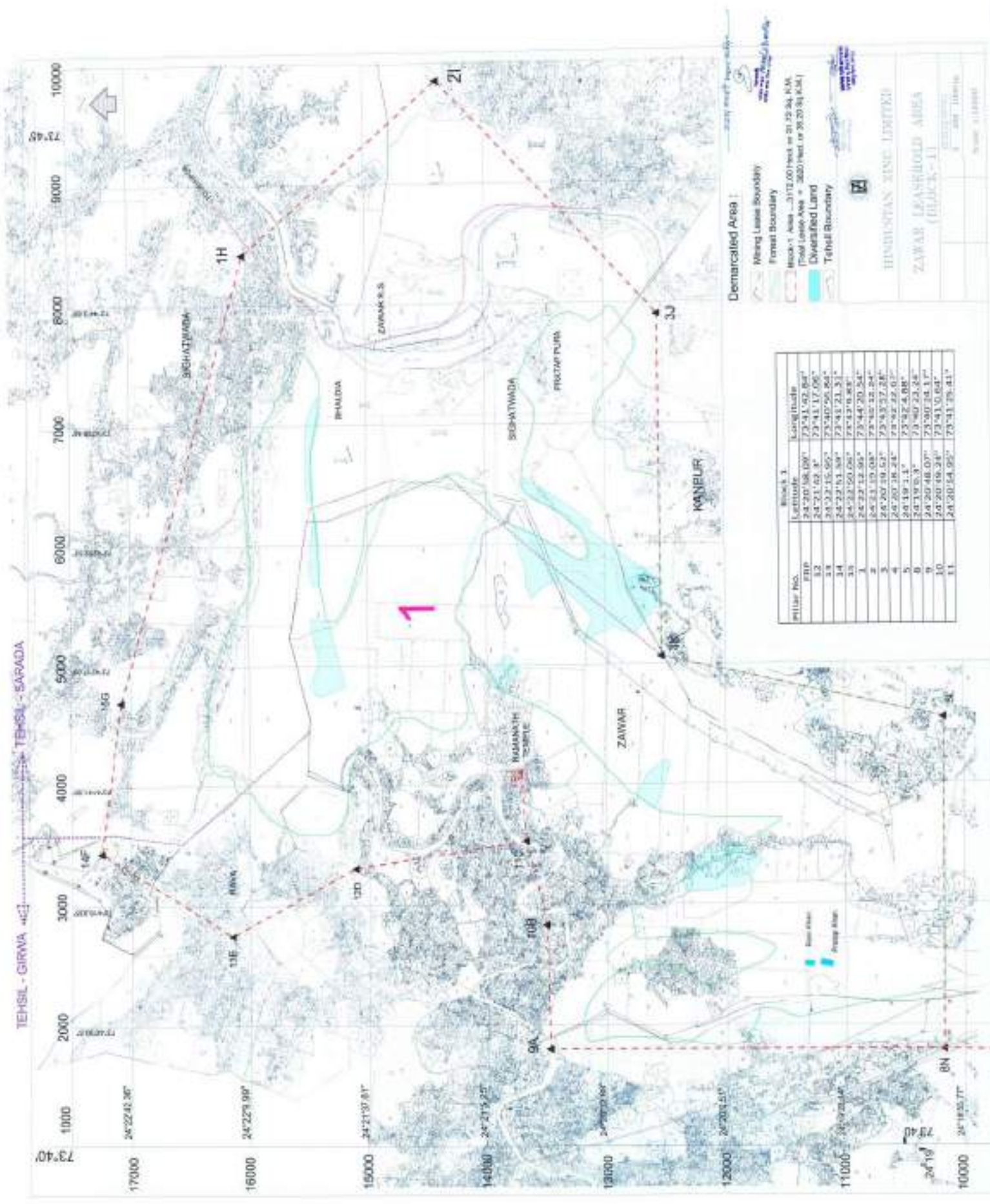
क्रमांक: खअ/उदय/सीसी-3/प्र/गिर्वा/4/98/3857-3859 दि: 26-02-15

प्रतिलिपि निम्न को सूचनार्थ हेतु :-

- 1- संयुक्त शासन सचिव, खान विभाग, शासन सचिवालय, जयपुर (राज.)।
- 2- निदेशक, खान एवं भू विज्ञान विभाग, राज0, उदयपुर को निदेशालय के निर्देश क्रमांक: निखाभू/प्रधान/का.अ./569-618 दिनांक 10-02-2015 के सन्दर्भ में।
- 3- अधीक्षण खनि अभियन्ता, उदयपुर-वृत्त, उदयपुर।

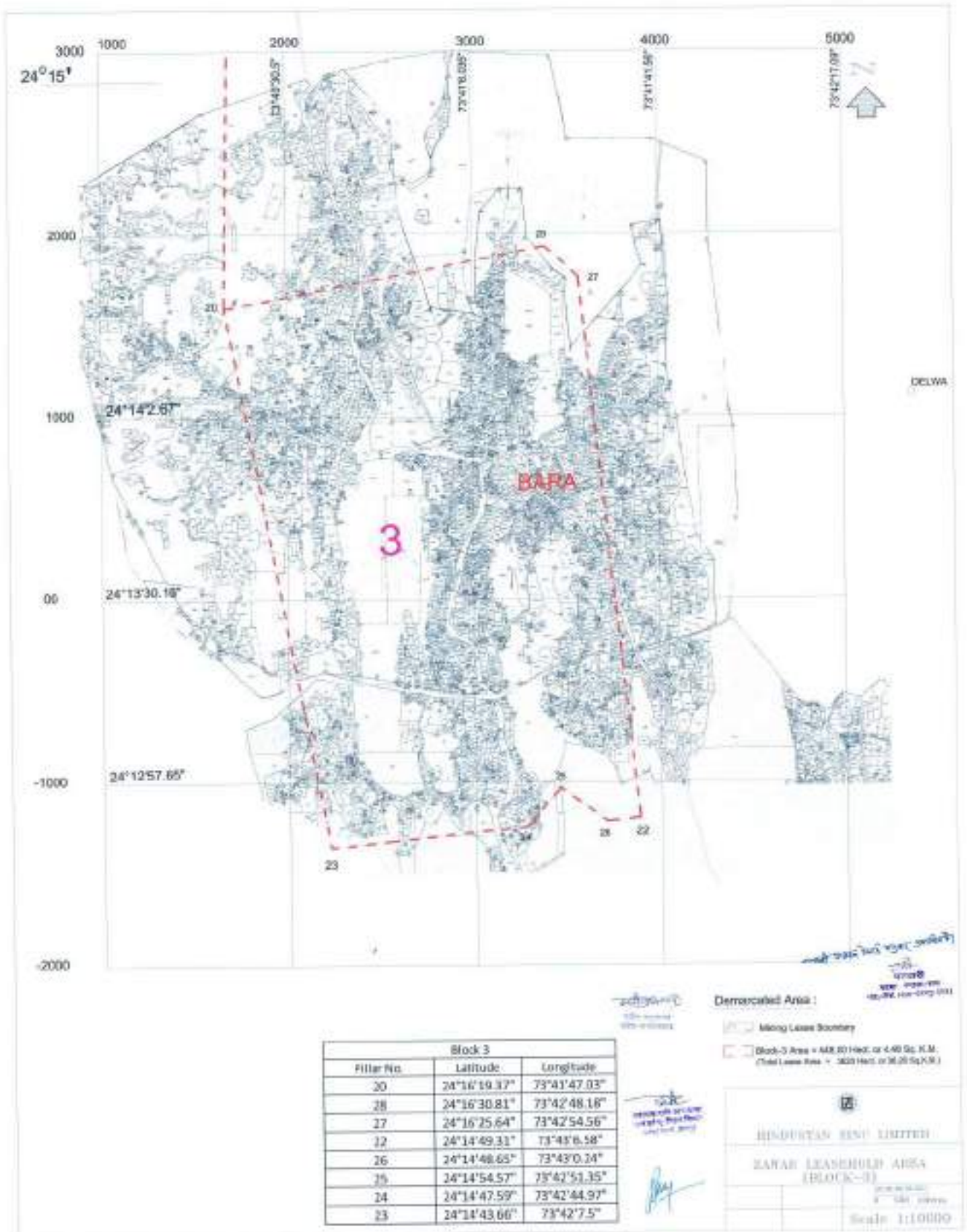


खनि अभियन्ता
उदयपुर



Block 3

Pillar No.	Latitude	Longitude
1	24°20'58.00"	73°41'52.84"
2	24°21'42.3"	73°41'17.06"
3	24°21'15.95"	73°40'56.84"
4	24°21'01.88"	73°41'21.31"
5	24°21'50.06"	73°41'0.83"
6	24°21'12.56"	73°44'20.54"
7	24°21'19.04"	73°41'12.24"
8	24°20'39.52"	73°43'37.28"
9	24°20'38.24"	73°42'29.01"
10	24°19'1.1"	73°42'4.88"
11	24°20'48.00"	73°40'23.24"
12	24°20'48.34"	73°41'35.64"
13	24°20'54.95"	73°41'35.41"




भारत सरकार
खान मंत्रालय
भारतीय खान ब्यूरो
क्षेत्रीय खान निवृत्तक का कार्यालय
माखपुरा औद्योगिक क्षेत्र अजमेर 305002
ई-मेल: ro.ajmer@ibm.gov.in



Government of India
Ministry of Mines
Indian Bureau of Mines
Office of the Regional Controller of Mines:
Makhapura Industrial Area, Ajmer- 305002
Ph-145-2695165 / 2695476 Fax-2695202

सं. 584(4)(3)(1868)/2021-क्षेत्रानि-अजम

दिनांक : 15/07/2021

प्रेषित :  **मैसर्स हिंदुस्तान जिंक लिमिटेड,**
यशद भवन,
उदयपुर- 313 001, राजस्थान
E-mail – arun.misra@vedanta.co.in

Sub : Approval of Modified Mining Plan along-with Progressive Mine Closure Plan in respect of **Zawar Group of Mines** Mining lease for **Lead-zinc and Silver** mineral near village Zawar, Tehsil Sarada & Girwa, District **Udaipur**, Rajasthan over an area of **3620 hect.**, **M.L. No. 03/89**, submitted under Rule 17(3) of MCR, 2016 in favour of **M/s. Hindustan Zinc Limited.**

Ref : 1. Your letters, as received in this office on 27.05.2021 and 12.07.2021
2. This office letter of even no. dated 14.06.2021

Sir,

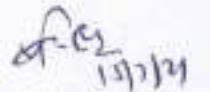
In exercise of the powers conferred by the clause (b) of sub section (2) of Section 5 of Mines and Minerals (Development & Regulation) Act, 1957 read with Government of India Order number S.O. 445 (E), dated 28.04.87 and Indian Bureau of Mines Gazette Notification S.O. 1872 (E) dated 18th May, 2016, I hereby **APPROVE** the above said Modified Mining Plan. This approval is subject to the following conditions:

- (i) This Modified Mining Plan is approved without prejudice to any other laws applicable to the mine area from time to time whether made by the Central Government, State Government or any other authority and without prejudice to any order or direction from any court of competent jurisdiction.
- (ii) The proposals shown on the plates and/or given in the document is based on the lease map/sketch submitted by the applicant/lessee and is applicable from the date of approval.
- (iii) It is clarified that the approval of your aforesaid Modified Mining Plan does not in any way imply the approval of the Government in terms of any other provisions of the Mines and Minerals (Development & Regulation) Act, 1957 or the Minerals (Other Than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016 and any other laws including Forest(Conservation) Act, 1980, Environment(Protection) Act, 1986 or the rules made there under, Mines Act, 1952 and Rule & Regulations made there under.
- (iv) Indian Bureau of Mines has not undertaken verification of the mining Lease boundary on the ground and does not undertake any responsibility regarding correctness of the boundaries of the precise area as furnished by the applicant/ lessee.

- (v) Lease boundary pillars shall be maintained at all times in accordance with the rule 12(1)(v) of Minerals (Other Than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016.
- (vi) At any stage, if it is observed that the information furnished, data incorporated in the document are incorrect or misrepresent facts, the approval of the document shall be revoked with immediate effect.
- (vii) The lessee shall ensure grassing/re-grassing in the reclaimed land in the lease area in accordance with the Hon'ble Supreme Court judgement dated 08.01.2020.
- (viii) Exploration shall be carried out as per approved Modified Mining Plan proposals and annual progress report on compliance of exploration proposals shall be submitted to this office before 30th June of every year for the preceding financial year.
- (ix) Next Financial Assurance shall be due for submission on 01.04.2025.
- (x) This approval has been given for the proposals given in the documents from 2021-22 to 2024-25.

Encl: One copy of approved Modified Mining Plan.

भवदीय



(बी. एल. कोटड़ीवाला)
क्षेत्रीय खान नियंत्रक
भारतीय खान ब्यूरो

Copy for kind information to:-

1. The Director, Department of Mines & Geology, Govt. of Rajasthan, Shashtri Circle, Udaipur (Raj.) along with a copy of approved Modified mining plan by Registered Parcel.
2. Dr. Shashi Bhushan Shukla, Mining Geologist, Zawar group of Mines, P.O. Zawar Mines, Udaipur-313 908, Rajasthan. E-mail - shashi.shukla@vedanta.co.in

क्षेत्रीय खान नियंत्रक
भारतीय खान ब्यूरो

ANNEXURE-III
EARLIER EC AND CERTIFIED COMPLIANCE REPORT

No. J-11015/289/2008-IA.II (M)

Government of India
 Ministry of Environment & Forests

Paryavaran Bhavan,
 C.G.O. Complex, Lodi Road,
 New Delhi-110 003.

Dated the 30th October, 2009

To

M/s Hinustan Zinc Limited
 Zawar Mines,
 District Udaipur,
 Rajasthan -319 01
 E-mail: amit.bhaumik@vedanta.co.in

Subject: The Zawar Group of Mines and an Integrated Lead and Zinc Mining and Mineral Processing Unit of M/s Hindustan Zinc Limited, located in Village Zawar, Tehsil Sarada, District Udaipur, Rajasthan-environmental clearance regarding.

Sir,

This has reference to your letter No. HZL/ZM/Env/2008-9/180 dated 23.08.2008 and subsequent letters dated 20.08.2009, 03.09.2009 and 18.09.2009 on the subject mentioned above. The proposal was earlier prescribed terms of reference (TORs) by the Ministry of Environment and Forests on 22.12.2008 for undertaking detailed EIA study for the purpose of obtaining environmental clearance. The proposal is for renewal of mine lease which fall due in March, 2010 and enhancement of production of lead zinc ore from 1.2 million tonnes per annum (million TPA) to 1.5 million TPA. A beneficiation plant, which already exists, will also be expanded in terms of its capacity from 1.2million TPA to 1.5million TPA. The total mine lease area of the project is 3620ha, spread over two blocks; Block-I (3172ha) and Block-III (448ha) with validity of current second renewal of mining lease upto 29.03.2010. Out of 3620ha of mining lease, 155.35ha is an agricultural land, 1537.91ha is forestland, 124.44ha is built up area (township, tailing dam, beneficiation plant, roads etc.), 164.6ha is plantation, 12.82ha is water bodies, 1015.74ha is barren land and 609.14ha is others. Surface rights have been acquired for 414.54ha. It has been envisaged that an additional land of 5.5ha (4ha for raising tailing dam height and 1.5ha for creating infrastructure for Baroi mine) will be required, which is non forest government barren land. Area proposed for excavation (incline) is 0.1ha, an area of 12ha is kept for temporary storage of over burden, 60.39ha for infrastructure (workshop, administrative building, beneficiation plant etc.), 10ha for roads, 30ha for railways, 116.34ha for tailings pond, 10ha for mineral separation plant, 68.11ha for township area and 3313ha is others. The Tidi River forms major river system in core and peripheral area. It is an ephemeral river and has two catchment zones in the North and West of the area. The Northern catchment commences from the high peaks of Aravali Mountains towards North West and North East of Kaya Village, where these attain elevation of more than 2000m.

..2/-

[Handwritten signature]
 12/11/09

[Handwritten signature] A. Gupta (Govt) Sarada | File

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ANNEXURE-III
EARLIER EC AND CERTIFIED COMPLIANCE REPORT

900m AMSL. The stream from these areas almost takes a South course and joins Tidi River at the base of a hill North West of mine area. The Western catchment commences from high hilly peaks around Sera Village where these attain elevation of more than 700m AMSL. The Tidi River near Tidi and Zawar Villages takes a meandering North East course. After flowing almost West-East course, in the North-North West of mining it changes its course towards South East where it is joined by the Daya River. The Daya River emerges from hill area around Keora Khurd Village. After flowing through hilly terrain as a narrow stream upto the Rela Village, the downstream course of river broadens with thin deposits of coarse alluvium. No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the mine and the area also does not report to form corridor for Schedule-I fauna. In support of this, a letter from the Deputy Conservator of Forests, Udaipur (South) dated 20.04.2009 has been provided. The Zawar Group of Mines is a conglomeration of four deposits namely Mochia, Balaria, Zawarmala and Baroi situated in a complexly folded geological structure. All the deposits have base metal mineralization in the form of tabular bodies formed out of concentration of galena (Pb) and sphalerite (Zn) veins. The mine working will be underground by mechanized method using sub level open stoping. Besides conventional stoping, extraction of remnant pillars at Mochia, Balaria and Zawarmala has been carried out through mass blasting. The targetted production capacity of the mine is 1.5million TPA of lead and zinc ore, which is cumulative of individual production of four operative mines namely Mochia, Balaria, Zawarmala and Baroi in the Block-I of Zawar leasehold. The life of mine is estimated to be 24years. Approximately 500TPD of concentrate will be transported through road. The beneficiation of ore produce from four mines namely Mochia, Balaria, Zawarmala and Baroi is done within the lease hold area at a centralized beneficiation plant. The process involves size reduction through crushing and grinding to -200 mesh sizes in the form of slurry for further chemical treatment to obtain lead and zinc concentrates. The tailings from beneficiation process are fed to three series tailing pumps in single stage pumping to tailing dam situated about 3.5km away from the plant through pipelines. The tailing dam have facility for dumping tailing slurry through pipeline network, collecting the decanted water and also pumping it back to beneficiation plant. In the present status of tailing disposal system, the first tailing dam with 38ha area (old tailing dam) saturated to its capacity in the year 1982 and has been completely stabilized by vegetation cover. The present active tailing dam is occupying an area of 78ha. The height of the tailing dam will be raised upto 60m and capacity will be adequate for the life of the mine. The tailing dam has been designed by the Indian Institute of Technology, Delhi. It is a rock fill dam with impervious layer of soil at bottom and inner surface. The decanted water will be recycled back for process use. The topography of Zawar area is marked by rugged and hilly terrain, dominated by steeply dipping outcrops and small valleys carved by the networks of ephemeral streamlets and streams. The drainage pattern is sub-dendretic to dendretic. The general slope of the area is from West to East and North West to South East. The major part of these hilly areas is under forest

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cover. The elevation above mean sea level reported to vary from 350m to 400m. The present working depth of mine is reported as 422m & 413m for Mochia (Central and West), 418m for Balaria, 260m for Zawarmala and 86m for Baroi. The maximum working depth of mine is reported as 487m (Mochia and Balaria). The depth of water table is shallow as observed from open wells in the mine and in Zawar village and ranges from 3m to 5m below the land surface during post-monsoon periods and 7-10m during pre-monsoon. The groundwater table intersected by mining at an average depth of 5m in the Mochia Mine, Balaria mine and the Baroi Mine and at an average depth of 8m in the Zawarmala mine. The hydro-geology provided in the EIA report. The water requirement of the project is estimated as 7,400m³ per day, which will be met from the captive dam on Tidi River. The power requirement for the project will be 12.50MW, which will be met from their captive power plant. It has been reported that there are 9576 people in the core zone of the mine, however, displacement of population and R&R has not been envisaged. It has been estimated that out of 27.29million tonnes of tailings to be generated during the life of mine, about 15.9million tonnes will be backfilled. In addition, the solid waste generated during the mining operation will be temporarily stacked in the earmarked areas for backfilling. There will be no external OB dump after the fifth year. Plantation will be raised in an area of 180.6ha. The public hearing of the project was held on 03.08.2009 for enhancement of production of mine and beneficiation plant from 1.2million TPA to 1.5million TPA involving lease area of 3620ha. The Indian Bureau of Mines had approved scheme of mining for Zawar Group of Mines on 21.08.2009 for lease area of 3620ha. Forestry clearance for diversion of 114.94ha surface forestland and 1537.91ha for underground mining has been obtained on 16.06.1998, under Section 2 of the Forest (Conservation) Act, 1980 for renewal of Zawar mining lease. The Mining Engineer, Udaipur, Department of Mines and Geology, Government of Rajasthan vide letter No. KHA.AA./UDAI/CC-3/M.L.-3/89/387 dated 22.06.2009 stated that the mine lease for the said mine was granted prior to 16.12.2002 and hence it is not covered by the order of Hon'ble Supreme Court dated 08.04.2005 in Writ Petition (C) No. 412 in IA. No. 883 in IA 828. The Central Ground Water Authority have issued NOC for dewatering of 235m³ per day of ground water from the Mochia UG mine, 135m³ per day from Balaria UG mine and 108m³ per day of ground water from Zawarmala and Baroi UG mines on 07.09.2009. The total cost of the project is Rs.191Crores, out of which Rs.30Crores will be the capital cost for environmental protection.

2. The Ministry of Environment and Forests has further noted that the Hon'ble Supreme Court in its order dated 08.04.2005 in Contempt Petition (C) No. 412/2004 In IA 833 in IA 820 has, pending further directions, restrained mining any area in Aravalli Hills falling in the State of Rajasthan, where permission may have been accorded after 16th December, 2002. As the mine lease area falls in the Aravalli Hills and it is an old working mine, the Ministry of Environment and Forests has examined the application in accordance with the EIA Notification, 2006 and hereby accords environmental clearance under the provisions thereof to the above mentioned Zawar Group of Mines and an

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Integrated lead and zinc Mining and Mineral Processing Unit of M/s Hindustan Zinc Limited for an annual production capacity of 15,00,000tonnes(1.5million tonnes) of lead and zinc ore by underground mechanized method and enhancement of capacity of beneficiation plant to 1.5million tonnes per annum involving total mining lease area of 3620ha, subject to the aforesaid order of the Hon'ble Supreme Court and implementation of the following conditions and environmental safeguards.

A. Specific Conditions

- (i) The project proponent shall obtain Consent to Establish and Consent to Operate from the Rajasthan State Pollution Control Board and effectively implement all the conditions stipulated therein.
- (ii) Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India in Contempt Petition (C) 412/2004 in IA No. 833 in Writ Petition (C)No. 202 of 1995, as may be applicable to this project.
- (iii) The environmental clearance is subject to approval of the State Landuse Department, Government of Rajasthan for diversion of agricultural land for non-agricultural use.
- (iv) The project proponent shall utilize additional land of 5.5ha after transfer of the land to them by the competent authority.
- (v) The top soil, if any, shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation.
- (vi) The project proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations.
- (vii) The over burden generated during the mining operation shall be stacked temporarily at the earmarked site(s) only for backfilling. There shall be no external over burden dump after the fifth year. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional Office located at Lucknow on six monthly basis.
- (viii) Catch drains and siltation ponds of appropriate size shall be constructed around the mineral and temporary over burden dumps to prevent run off of water and flow of sediments directly into the Tidi River and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after the monsoon and maintained properly.

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Garland drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed around the mineral and temporary over burden dumps to prevent run off of water and flow of sediments directly into the Tidi River 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 shall be constructed at the corners of the garland drains and desilted at regular intervals.

- (ix) Regular monitoring of subsidence movement on the surface over working area and impact on water bodies/vegetation/ structures/ surrounding shall be continued till movement ceases completely. In case of observation of any high rate of subsidence movement, appropriate measures shall be taken to avoid loss of life and material. Cracks shall be effectively plugged with ballast and clayey soil/suitable material.
- (x) All the mine entries shall be above the highest flood level to avoid any anticipated flooding of mine from the surface water during the rainy season.
- (xi) In areas where subsidence is anticipated in shallow mineral occurrence, such areas be identified and provided with garland drains to ensure draining of water and avoid ingress of the same in to the underground mine.
- (xii) The project authorities shall check the possibility of existence of fault(s) before deciding about the thickness of safe barrier required to be maintained between the working face and the water bodies, if any, in consultation with the Director General Mines & Safety (DGMS). De-pillaring should also be carried out after taking prior approval of the DGMS.
- (xiii) The project proponent shall carry out conditioning of the ore with water to mitigate fugitive dust emission, without affecting flow of ore in the ore processing and handling areas.
- (xiv) The effluent from the ore beneficiation plant shall be treated to conform to the prescribed standards and the tailings slurry shall be transported through a closed pipeline to the tailing dam.
- (xv) The decanted water from the tailing dam shall be re-circulated and there should be zero discharge from the tailing dam. Acid mine water, if any, shall be neutralized and reused within the plant.
- (xvi) Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels

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EARLIER EC AND CERTIFIED COMPLIANCE REPORT

of SPM and RSPM such as haul road, loading and unloading point and all transfer points. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.

- (xvii) Plantation shall be raised in an area of 180.6ha including a 7.5m wide green belt in the safety zone around the mining lease, rehabilitated areas, around beneficiation plant, around tailing dam, roads etc. by planting the native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 1500 plants per ha.
- (xviii) The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.
- (xix) Regular monitoring of ground water level and quality shall be carried out in and around the project area (mine lease, beneficiation plant and tailing dam) by establishing a network of existing wells and installing new piezometers during the operation. The periodic monitoring [(at least four times in a year- pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment and Forests and its Regional Office Lucknow, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity, necessary corrective measures shall be carried out.
- (xx) Groundwater and surface water in and around the mine shall be regularly monitored at strategic locations for heavy metals such as Ni, Co, Cu, Pb, Zn and Cd. The monitoring stations shall be established in consultation with the Regional Director, Central Ground Water Board and the State Pollution Control Board.
- (xxi) The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water, required for the project.
- (xxii) Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.
- (xxiii) Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operation and in transportation of mineral. The vehicles carrying the mineral shall be covered with a tarpaulin and shall not be overloaded.

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8.7/-

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EARLIER EC AND CERTIFIED COMPLIANCE REPORT

- (xxiv) Mineral handling area shall be provided with 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.
- (xxv) Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.
- (xxvi) Sewage treatment plant shall be installed for the colony. ETP shall also be provided for the workshop and the wastewater generated during mining operation.
- (xxvii) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (xxviii) Acid mine water, if any, has to be treated and disposed of after conforming to the standard prescribed by the competent authority.
- (xxix) The critical parameters such as SPM, RSPM, NO_x in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a 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.
- (xxx) 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.

B. General conditions

- (i) No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.
- (ii) No change in the calendar plan including excavation, quantum of mineral lead and zinc ore and waste should be made.

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EARLIER EC AND CERTIFIED COMPLIANCE REPORT

- (iii) Conservation measures for protection of flora and fauna in the core & buffer zone should be drawn up in consultation with the local forest and wildlife department.
- (iv) Atleast four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM, SPM, SO₂ & NO_x 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:
- (v) Data on ambient air quality (RSPM, SPM, SO₂ & NO_x) 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.
- (vi) 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.
- (vii) 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.
- (viii) Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.
- (ix) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.

Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.
- (x) A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
- (xi) The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office located at Lucknow.

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- (xii) The project authorities should inform to the Regional Office located at Lucknow regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- (xiii) The Regional Office of this Ministry located at Lucknow shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
- (xiv) The project proponent shall submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the Ministry of Environment and Forests, its Regional Office Lucknow, the respective Zonal Office of CPCB and the SPCB. The proponent shall upload the status of compliance of the EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the Ministry of Environment and Forests, Lucknow, the respective Zonal Officer of CPCB and the SPCB.
- (xv) A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/ 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.
- (xvi) 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.
- (xvii) The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company 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.
- (xviii) 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.

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EARLIER EC AND CERTIFIED COMPLIANCE REPORT

3. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
4. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.
5. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made thereunder and also any other orders passed by the Hon'ble Supreme Court of India/ High Court of Rajasthan and any other Court of Law relating to the subject matter.
6. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997.


(SATISH C. GARKOTI)
Additional Director (S)

Copy to:

- (i) The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
- (ii) The Department of Mines & Geology, Government of Rajasthan, Secretariat, Jaipur.
- (iii) The Secretary, Department of Environment, Government of Rajasthan, Secretariat, Jaipur.
- (iv) The Chief Conservator of Forests, Central Region, Ministry of Environment and Forests, B-1/72, Sector-A, Aliganj, Lucknow-226020.
- (v) The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office complex, East Arjun Nagar, New Delhi-1100032.
- (vi) The Member Secretary, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
- (vii) The Chairman, Rajasthan State Pollution Control Board, 4, Institutional area, Jhalana, Doongri, Jaipur.

..11/-

ANNEXURE-III
EARLIER EC AND CERTIFIED COMPLIANCE REPORT

- (viii) The Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
- (ix) The District Collector, Udaipur District, Rajasthan.
- (x) EI Division, Ministry of Environment and Forests, Paryavaran Bhavan, C. G. O. Complex, Lodi Road, New Delhi-110 003.
- (xi) Monitoring File.
- (xii) Guard File.
- (xiii) Record File.

Speed Post

No. J-11015/259/2012-IA.II (M)
Government of India
Ministry of Environment, Forest and Climate Change
Impact Assessment Division

Indira Paryavaran Bhavan,
Aliganj, Jor Bag Road,
New Delhi-110 003

Dated: 5th January, 2017

To,

M/s Hindustan Zinc Limited

Zawar Mine
P.O. Dariba, Tehsil-Relmagra
District- Udaipur
Pin- 313901, Rajasthan

Tel. No. 0294-2726600;
Fax No. 0294 2726243

Sub.: Zawar Group of Underground Mines with enhancement of production capacity from 1.5 million TPA to 4.0 million TPA of Lead-Zinc ore and ore beneficiation from 1.5 MTPA to 4.0 MTPA by M/s Hindustan Zinc Limited, located near village Zawar, Tehsil Girwa and Sarada District-Udaipur, Rajasthan (MLA: 3620ha)-Environmental Clearance regarding.

Sir,

This has reference to above mentioned Environmental Clearance proposal of M/s Hindustan Zinc Limited for Zawar Group of Underground Mines with enhancement of production capacity from 1.5 million TPA to 4.0 million TPA of Lead-Zinc ore and ore beneficiation from 1.5 MTPA to 4.0 MTPA. The total mining lease area is 3620 hectares spread over two blocks; Block 1 (3172 hectares) and Block 3 (448 hectares). Zawar Group of mines are located near village Zawar, Tehsil Girwa and Sarada, District-Udaipur, Rajasthan. The area lies in Block 1 at Longitude E 73°40'22" to E 73°45'08" Latitude N 24°18'50" to N 24°22'47" and Block 3 at Longitude E 73°40'26" to E 73°41'46" Latitude N 24°12'37" to N 24°14'21" on the Survey of India topo sheet no. 45 H/11, 45 H/12, 45 H/15 and 45H/16.

2. The proposal of TOR was considered by the Expert Appraisal Committee (Mining) in its meeting held on December 19-21, 2012 to determine the Terms of Reference (TOR) for undertaking detailed EIA study. The TOR was issued by the Ministry vide letter no. J-11015/259/2012-IA.II (M), dated 1st April, 2013. Further, the Ministry, vide letter of even no. dated 18.02.2016, has amended the TOR and extended the validity of TOR upto 31.03.2017. The Proponent submitted the EIA/EMP Report online to the Ministry for seeking Environmental Clearance after conducting Public Hearing. The proposal of EC was appraised in the EAC meeting held during November 23-25, 2016 wherein the Committee recommended the proposal for Environmental Clearance for Enhancement of production capacity from 1.5 million TPA to 4.0 million TPA of Lead-Zinc ore and ore beneficiation from 1.5 MTPA to 4.0 MTPA.

EC to M/s Hindustan Zinc Limited (MLA: 3620ha)

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3. The total mine lease area of the project is 3620 ha, out of which 155.35 ha is agricultural land, 59.84 ha is grazing land, 1537.91 ha is forest land, 99.75 ha is settlement, 169.65 ha is plantation area, 90.97 ha is water bodies, 1160.80 ha is barren land and 345.73ha is others. The mine lease number is ML-3/89 and valid till 31.03.2030. It has been proposed that after expansion an area of 8.66ha is kept for beneficiation plant, 2.0 ha for ore stock yard, 223.52ha for tailing dam, 96.14ha for utilities, 209.65ha for plantation, 47.06ha is remaining area. Ministry of Environment, Forest and Climate Change vide letter no. 8-1/1997-FC dated 23.01.2015 has diverted forest land (114.94 ha for surface rights and 1422.97ha for underground mining i.e. total forest land 1537.91 ha) under section 2 of Forest (Conservation) Act, 1980. The Tidi River forms major river system in core and peripheral area. It is an ephemeral river and has two catchment zones in the North and West of the area.

4. The Scheme of Mining with Progressive Mine Closure Plan was approved by IBM vide Letter No. 682(23)(M.P.671)/2009/MDRD(N)-UDAI dated 31.07.2015. The modified mining plan including Progressive Mine Closure Plan was approved by IBM vide letter no. 682(23)(M.P.671)/2009/MDRD(N)-UDAI dated 24.11.2016. The mine working will be underground mechanized method using sub level open stoping and its variants. The targeting production capacity of the mine is 4.0 Million TPA of Lead - Zinc ore and the life of the mine is over 15 years. The current mining method is most suitable considering the operating conditions prevalent in this mines. The various mining systems planned to be upgraded are in areas of exploration, mechanised mine development, mechanised mining operations, ventilation systems, training through simulator and safety initiatives around men and machinery, focussed emergency response system and rescue. It is proposed to have extensive exploration for enhancing reserve availability by accelerated surface and under exploration, develop decline and infrastructure for enhancing mechanization and deployment of large size equipment fleet like 50T LPDTs, 17T LHDs, Double boom drill jumbos etc. The Geo tech study in progress will help in assessing the correct method at lower level and overall stability of the mines. Improved Communication system underground will be established to enhance safety and productivity. Subsidence monitoring, underground monitoring systems, blast design and blast vibration monitoring are in place to track and ensure safe operations.

5. The Project Proponent reported that the power requirement for the proposed expansion project is estimated 22.5 MW and total of 35 MW which will be met from Captive generation and Vidyut Nigam Limited. Emergency Power requirements will be met through the ~8MW DG set capacities. The water requirement for the proposed expansion project is estimated 8000 m³ per day, and total of 14000 m³ per day which will be met from captive Tidi Dam. The Central Ground Water Authority has renewed the NOC for dewatering of ground water from underground mine vide letters No. 21-4(268)/CGWA/WR/2008/2183 dated 09.12.2013 for Zawarmala mine (108 m³ per day); No. 21-4(267)/CGWA/WR/2008/2185 dated 09.12.2013 for mochia mine (235 m³ per day); No. 21-4(345)/CGWA/WR/2008/2182 dated 09.12.2013 for Baroi mine (108 m³ per day); and No. 21-4(266)/CGWA/WR/2008/2184 dated 09.12.2013 for Balaria mine (135 m³ per day). The renewal is valid for 3 year i.e. 08.12.2016.

6. The Project Proponent reported the approximately 3.1 lakhs TPA of concentrate will be transported through the road in covered trucks/dumpers. The

separation of minerals (Galena and Sphalerite) carried out by physico-chemical process i.e. differential froth floatation. Tailing after dewatering will be disposed in the tailing dam. On implementation of backfill system, part of the tailing shall be backfilled into exhausted stocks. Proponent also explained the various alternatives like dry tailing disposal being explored. The Beneficiation plant for Lead - Zinc ore will be expanded from 1.5 Million TPA to 4.00 Million TPA. The concentrate will be transported through road and the proposed additional traffic is likely to be increased on the existing road network from Zawar Group of mines to Tidi road and then to Udaipur which is connecting the RJ NH-8 from the mine and based on the study conducted the same is found to be adequate. The concentrate will be transported through covered trucks/dumpers to HZL Smelters. The Project Proponent presented the Ventilation Plan in line with DGMS guidelines, provision of Personal Protective equipment's and necessary training and awareness programs for mine workers that will be undertaken. Occupational Health measures were also explained. The Project Proponent reported that the workers were provided Self Rescuer in addition to basic PPEs like gum boot, helmet with cap lamp, dust mask, goggles, ear plug etc. Proponent explained the mine environment and the vehicle emission data's. The Committee suggested monitoring PM_{2.5} in the vehicle emission to improve the mine environment.

7. The Ministry has earlier accorded the Environmental Clearance, vide letter no. J-11015/289/2008-IA.II (M), dated 30th October, 2009. The Regional Office of the MoEFCC, Lucknow vide letter dated 27.06.2016 has submitted the certified compliance report. The Committee deliberated the compliance of earlier EC conditions and noted that the compliances are adequate.

8. Project Proponent reported that no eco-sensitive zones like National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve/Reserve Forest etc. are reported in the study area i.e. 10 Km radius of mine lease. DFO Udaipur vide letter date 20.04.2009 reported that there is no National Park/ Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve are reported in the 10 Km radius of mine lease area. The details of mine site have been seen by the EAC using KML/SHP files on Decision Support System and noted that the Jaisamand Wildlife Sanctuary is 8.74 Km from the mine lease area. However, the Proponent clarified that the Jaisamand Wildlife Sanctuary is beyond 10 Km of the mine lease and produced the relevant map approved by State Government in this regard. The Committee deliberated on the issue and is of the view that Project Proponent needs to verify once from the Wildlife Authority. In this context, Deputy Conservator of Forests, Wildlife, Udaipur vide letter dated 29.11.2016 has verified and certified that the Jaisamand Wildlife Sanctuary and other protected areas are not falling in 10 Km of aerial distance of mine lease area.

9. The State Government of Rajasthan, vide letter dated 22.06.2009 stated that the mining lease area does not fall in the Aravalli Hills. The Project Proponent reported that there are Schedule-I species viz. Peafowl (*Pavo cristatus*), Osprey (*Pandion haliaetus*), Tawny eagle (*Aquila rapax*), Crested honey buzzard (*Pernis ptilorhynchus*), Shikra (*Accipiter badius*), Leopard (*Panthera pardus*), Indian pangolin (*Manis crassicaudata*) in the study area for which Proponent has made Conservation plan in consultation with State Forest and Wildlife Department. The Committee deliberated the conservation plan and suggested to

enhance the budget for implementation of Conservation Plan for Schedule I Species and also increase the budget for plantation/green belt development.

10. The baseline data was generated for the summer season i.e. March 2016 to May 2016. All the parameters for water and soil quality were within permissible limits. The ambient air quality was also within permissible limits as the operations are underground mine and there are no significant emission sources near the site. The Committee deliberated the baseline data collected by the Project Proponent.

11. The Public Hearing for the proposed expansion project was conducted on 29th September 2016 at Bhaldia Panchayat Bhawan, Zawar Mines, Tehsil-Sarada, Udaipur. The Public Hearing was presided over by Mr. C.R. Dewasi, Additional District Collector (Admin). The representatives of Rajasthan State Pollution Control Board were also present. The Project Proponent informed about various Corporate Social Responsibilities under taken in Infrastructure development, Health, Hygiene and Water, Women Empowerment and rural lively hood in nearby villages.

12. Total Project cost of the expansion project is Rs. 1200 Crores and the capital cost for Environmental Protection measures is proposed as Rs. 148 Crores. Manpower requirement is about 1250. Project Proponent reported that there is no court case pending against the project.

13. The Ministry of Environment, Forest and Climate Change has examined the proposal in accordance with the Environmental Impact Assessment Notification, 2006 and further amendments thereto and hereby accords the environmental clearance under the provisions thereof to the above mentioned proposal of **M/s Hindustan Zinc Limited for Zawar Group of Underground Mines with enhancement of production capacity from 1.5 million TPA to 4.0 million TPA of Lead-Zinc ore and ore beneficiation from 1.5 MTPA to 4.0 MTPA in the mine lease area of 3620ha, located at near village Zawar, Tehsil Girwa and Sarada District-Udaipur, Rajasthan** subject to compliance of the followings terms and conditions and environmental safeguards mentioned below:

A. Specific conditions

- 1) Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court of Rajasthan and any other Court of Law, if any, as may be applicable to this project.
- 2) This Environmental Clearance is subject to obtaining requisite NBWL Clearance from the Standing Committee of National Board for Wildlife, if any, applicable for this Mining project.
- 3) No mining activities will be allowed in forest area, if any, for which the Forest Clearance is not available.
- 4) The project proponent shall obtain Consent to Operate from the State Pollution Control Board, Rajasthan and effectively implement all the conditions stipulated therein.
- 5) **The Proponent should install online Ambient Air Quality Monitoring System and there should be system for display of digital AAQ data**

within 03 months at least at three locations as per wind direction. Online provisions of pH and turbidity meters at discharge points of STP and ETP and also at water storage ponds in the mining area may be made. Project Proponent should display the result digitally in front of the main Gate of the mine site.

- 6) The Project Proponent has to take care of gullies formed on slopes. Dump mass should be consolidated with proper filling/leveling with the help of dozer/compactors. The report on slope and stability monitoring should be sent to MoEF&CC and its Regional office every six-months.
- 7) The reclamation at waste dump sites shall be ecologically sustainable. Scientific reclamation has been followed. The local species may be encouraged and species are so chosen that the slope, bottom of the dumps and top of the dumps are able to sustain these species. The aspect of the dump is also a factor which regulates some climatic parameters and allows only species adopted to that micro climate. This may be recommended to be studied by hiring Expert Ecology Group.
- 8) There is need for regular monitoring of invertebrates and aquatic life of water bodies including the reservoir located close to the mining lease to establish that fish and other animals including the water is not contaminated with heavy metal. There could be a research on "bio accumulation of heavy metals in invertebrates" to completely establish that there is no impact of mining.
- 9) A specialized Institution may be hired to carry out ecological survey on the plant species to evaluate their growth in terms of stunted, deformed and seed viability. The sensitive species and indicator species to heavy metal pollution may be screened out and plantation accordingly designed. Similarly, uptake of Zinc, Cadmium and lead etc. by crops and vegetables grown in the crop lands around the mining lease may be studied. Bottom sediment analysis of ponds, wells and Rivers to ascertain the level of accumulation of heavy metal may be done.
- 10) The Proponent shall conduct an Occupational health study with respect to the pressure impact on ear drums as person goes underground and implement the recommendations.
- 11) Project Proponent shall carry out vibration studies well before approaching any such habitats or other buildings to evaluate the zone of influence and impact of blasting on the neighborhood. Within 500 meters of such sites vulnerable to blasting vibrations, avoidance of use of explosives and adoption of alternative means of mineral extraction. A provision for monitoring of each blast should be made so that the impact of blasting on nearby habitation and dwelling units could be ascertained. The covenant of lease deed under Rule 31 of MCR 1960 provides that no mining operations shall be carried out within 50 meters of public works such as public roads and buildings or inhabited sites except with the prior permission from the Competent Authority.

- 12) Main haulage road in the mine should be provided with permanent water sprinklers and other roads should be regularly wetted with water tankers fitted with sprinklers. The material transfer points should invariably be provided with Bag filters and or dry fogging system. Belt-conveyors should be fully covered to avoid air borne dust; Use of effective sprinkler system to suppress fugitive dust on haul roads and other transport roads shall be ensured.
- 13) The monitoring of PM_{2.5} in the vehicle emission shall be conducted to improve the mine environment and report submitted to the Regional Office of the MoEFCC.
- 14) The Project Proponent reported that there are seven Schedule-I species viz. Peafowl (*Pavo cristatus*), Osprey (*Pandion haliaetus*), Tawny eagle (*Aquila rapax*), Crested honey buzzard (*Pernisptilorhynchus*), Shikra (*Accipiter badius*), Leopard (*Pantherapardus*), Indian pangolin (*Manis crassicaudata*) in the study area. The PP shall implement the Conservation Plan and enhance the budget for implementation of Conservation Plan for Schedule I Species and also increase the budget for plantation/green belt development. The Proponent shall implement the Wildlife Conservation Plan along with the funds so allocated with consultation of Chief Wild Life Warden of the State Govt. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office, Lucknow and the Chief Wild Life Warden of the State Govt.
- 15) Proponent shall carry out monitoring of lead in the blood samples of the employees and the villagers in the areas surrounding the mine in their schedule of health check-up. The nearby water bodies shall be monitored every six months and report submitted to Regional office of the MoEFCC to ascertain impact due to lead contamination.
- 16) Implementation of Action Plan on the issues raised during the Public Hearing shall be ensured. The Project Proponent shall complete all the tasks as per the Action Plan submitted with budgetary provisions during the Public Hearing.
- 17) Implementation of the outcome of study with regard to "optimization of blast design parameter for the safety and stability of surface structures and subsequent monitoring of vibration on the surface structures for their long term stability" which was carried out by Central Institute of Mining and Fuel Research should be ensured.
- 18) Continuous monitoring of radioactive elements, if any, shall be undertaken till entire mine is dewatered and report has to be submitted to MoEFCC Regional Office. Periodic monitoring of any adverse impact of Radon and its daughter products on any worker should be included in the Occupational Health Monitoring Programme.

B. Standard conditions

- 1). A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment, Forest and Climate Change 5 years in advance of final mine closure for approval.
- 2). No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment, Forest and Climate Change.
- 3). No change in the calendar plan including excavation, quantum of mineral and waste should be made.
- 4). The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and ground water) for the project.
- 5). Mining shall be carried out as per the provisions outlined in mining plan approved by Indian Bureau of Mines (IBM) as well as by abiding to the guidelines of Directorate General Mines Safety (DGMS).
- 6). The lands which are not owned by Proponent, mining will be carried out only after obtaining the consents from all the concerned land owners as per the provisions of the Mineral Concession Rules, 1960 and MMDR Act, 1957.
- 7). Digital processing of the entire lease area using remote sensing technique shall be carried out regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment, Forest and Climate Change its Regional Office.
- 8). The critical parameters as per the Notification 2009 such as PM₁₀, PM_{2.5}, NO_x, and SO_x etc. in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS))]. The monitored data shall be uploaded on the website of the company as well as displayed on a 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, Forest and Climate Change shall also be referred in this regard for its compliance.
- 9). Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM₁₀ and PM_{2.5} such as haul road, loading and unloading point and transfer points. Fugitive dust emissions from all the sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard. Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended from time to time by the Central Pollution Control Board.

- 10). Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations. The monitoring shall be carried out four times in a year pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board.
- 11). Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table.
- 12). Regular monitoring of water quality upstream and downstream of water bodies shall be carried out and record of monitoring data should be maintained and submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.
- 13). Transportation of the minerals by road passing through the village shall not be allowed. A 'bypass' road should be constructed (say, leaving a gap of at least 200 meters) for the purpose of transportation of the minerals so that the impact of sound, dust and accidents could be mitigated. The project proponent shall bear the cost towards the widening and strengthening of existing public road network in case the same is proposed to be used for the Project. No road movement should be allowed on existing village road network without appropriately increasing the carrying capacity of such roads.
- 14). The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.
- 15). Main haulage road in the mine should be provided with permanent water sprinklers and other roads should be regularly wetted with water tankers fitted with sprinklers. The material transfer points should invariably be provided with Bag filters and or dry fogging system. In case of Belt-conveyors facilities the system should be fully covered to avoid air borne

- dust; Use of effective sprinkler system to suppress fugitive dust on haul roads and other transport roads shall be ensured.
- 16). Sufficient number of Gullies to be provided for better management of water. Regular Monitoring of pH shall be included in the monitoring plan and report shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.
 - 17). There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis and implementation of conservation measures to augment ground water resources in the area in consultation with Central Ground Water Board.
 - 18). The Project Proponent has to take care of gullies formed on slopes. Dump mass should be consolidated with proper filling/leveling with the help of dozer/compactors.
 - 19). The reclamation at waste dump sites shall be ecologically sustainable. Scientific reclamation shall be followed. The local species may be encouraged and species are so chosen that the slope, bottom of the dumps and top of the dumps are able to sustain these species. The aspect of the dump is also a factor which regulates some climatic parameters and allows only species adopted to that micro climate.
 - 20). The top soil, if any, shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time. The maximum height of the dumps shall not exceed 8m and width 20 m and overall slope of the dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled and afforested. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.
 - 21). Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. The drains, 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 run off of water and flow of sediments directly into the river 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 shall be constructed at the corners of the garland drains and desilted at regular intervals.

- 22). Plantation shall be raised in a 7.5m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, around water body, along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department and as per CPCB Guidelines. The density of the trees should be around 2500 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.
- 23). Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area", if any, applicable to the project.
- 24). The Project Proponent shall make necessary alternative arrangements, where required, in consultation with the State Government to provide alternate areas for livestock grazing, if any. In this context, Project Proponent should implement the directions of the Hon'ble Supreme Court with regard to acquiring grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded against felling and plantation of such trees should be promoted.
- 25). The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.
- 26). As per the Company Act, the CSR cost should be 2 % of average net profit of last three years. Hence CSR expenses should be as per the Company Act/Rule for the Socio Economic Development of the neighborhood Habitats which could be planned and executed by the Project Proponent more systematically based on the 'Need based door to door survey' by established Social Institutes/Workers. The report shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.
- 27). Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- 28). 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.

- 29). Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.
- 30). Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
- 31). A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
- 32). The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office.
- 33). The project authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- 34). The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment, Forest and Climate Change, its Regional Office, Central Pollution Control Board and State Pollution Control Board.
- 35). The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
- 36). A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation has been received while processing the proposal.
- 37). State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.
- 38). 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, Forest and Climate Change at www.environmentclearance.nic.in and a copy of the same should be forwarded to the Regional Office.

14. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

15. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

16. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court of Rajasthan and any other Court of Law relating to the subject matter.

17. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.


(Surendra Kumar)
Director (S)

Copy to:

- 1). **The Secretary**, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
- 2). **The Secretary**, Department of Mines & Geology, Government of Rajasthan, Secretariat, Jaipur.
- 3). **The Secretary**, Department of Environment, Government of Rajasthan, Secretariat, Jaipur.
- 4). **The Addl. Principal Chief Conservator of Forests**, Ministry of Environment, Forest and Climate Change, Kendriya Bhawan, 5th Floor, Sector "H", Aliganj, Lucknow-226020.
- 5). **The Chief Wild Life Warden**, Government of Rajasthan, Secretariat, Jaipur
- 6). **The Member Secretary**, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
- 7). **The Chairman**, Rajasthan State Pollution Control Board, 4, Institutional area, Jhalana, Doongri, Jaipur.
- 8). **The Controller General**, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur - 440 001.
- 9). **The District Collector**, District- **Udaipur**, State of Rajasthan.
- 10). **Guard File.**
- 11). **MoEFCC website.**


(Surendra Kumar)
Director (S)

Annexure V_EC of ZawarMine 2020



F.No.J-11015/259/2012-IA-II(M)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division

2nd Floor, Prithvi Block
Indira Paryavaran Bhawan
Jor Bagh Road, Aliganj
New Delhi-110003

Date:16th October, 2020

To,

M/s.Hindustan Zinc Limited
Yashad Bhawan, Girwa
Udaipur-313 004
Rajasthan

Sub: Environmental Clearance under para 7(ii) of EIA notification 2006 for expansion of Zawar Group of underground lead- zinc mines of M/s Hindustan Zinc Limited proposed expansion from 4.0 MTPA to 4.8 MTPA zinc ore and expansion in beneficiation plant from 4.0 Million TPA to 4.8 MTPA from the mine lease area of 3620 ha (ML No.03/89) located at village Zawar Tehsil Girwa and Sarada, District Udaipur, Rajasthan- reg.

Sir,

This has reference to proposal No. IA/ RJ/MIN/165786/2020 for Environmental Clearance (EC) under para 7(ii) of EIA notification 2006 for mining of M/s. Hindustan Zinc Limited is for expansion from 4.0 MTPA to 4.8 MTPA Zinc Ore and expansion in Beneficiation plant from 4.0 MTPA to 4.8 MTPA, from the mine lease area of 3620 ha, located at ML No.03/89 near village Zawar (including Bhaladia, Newatalai, Singhatwara, Tidi, Rava, Kodyakhet, Kanpur, Dhavaditalai, Paduna, Udiyakhara, Nayakhara, Chanavada, Bara, Saru), Tehsil Girwa and Sarada, District Udaipur, Rajasthan under para 7(ii) (a) of EIA Notification, 2006. The proposed project site falls in zone-III as per IS 1893 (Part-I):2002.

2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category A, project activity 1(a) [Mining of Minerals] and 2(b) [mineral beneficiation] as the mining lease area is 3620 ha.

3. The proposal of Terms of Reference (ToR) was considered by the Expert Appraisal Committee in its 11th meeting held during 25th - 27th September 2013 to determine the ToR for undertaking detailed EIA study. The ToR was issued by MoEF&CC vide letter no.J-11015-259-2012-IA-II(M) dated 01.04.2013 and amended ToR was issued on 18.02.2016.

4. The project proponent has applied for Environmental Clearance for expansion production capacity from 4.0 MTPA to 4.8 MTPA zinc-lead ore (20% increase) and expansion

Pauroy

in beneficiation plant from 4.0 MTPA to 4.8 MTPA from the mine lease area of 3620 ha (ML No.03/89) located at village Zawar (including Bhaladia, Newatalai, Singhatwara, Tidi, Rava, Kodyakhet, Kanpur, Dhavaditalai, Paduna, Udiyakhara, Nayakhara, Chanavada, Bara, Saru), Tehsil Girwa and Sarada, District Udaipur, Rajasthan State.

5. The project proponent submitted that total mine lease area is 3620.0 ha. The lease was granted from 1st April 1950 for a period of 20 years for 5178 ha. The project proponent has reported that 1st renewal was made vide letter No.P.12(26)/Udaipur/Gp-2/90 on 13.03.1973 for the period from 01 Apr 1970 to 29 Mar 1990 for an area of 5178 ha. The 2nd renewal was granted on 20.10.1992 for the period from 30th March 1990 to 29th March, 2010 for 5178.0 ha. Amendment was made vide order dated 03.08.1999 for reduction of lease area from 5178.0 ha to 3620.0 ha and validity of renewal from 30.03.200 to 29.03.2010. The 3rd renewal has been granted vide letter No.ME/Udai/cc-3/P/Sarada/323/08/3856 dated 23.01.2015 for the period from 30th March 2010 to 31st March 2030 for an area of 3620.0 ha.

6. The project proponent has submitted that Approval of Review of Mining Plan long-with Progressive Mine Closure Plan has been approved by IBM vide letter no.584(4)(3)(1809)/2019-RCM-Ajm dated 17.12.2019.

7. The project proponent submitted that the project itself being an underground mine, all mine development and production activity will happen underground. The underground mine voids shall be backfilled with ore beneficiation tailings, as per the mine plan. Tailing dam will be rehabilitated by vegetative cover after utilization to its optimum capacity. At the end of mine life, major infrastructure in the mine and beneficiation plant shall be dismantled and reclaimed after decontamination of any contaminated sites, as envisaged in the mining plan.

The waste rock generation shall increase proportionate to increase in production capacity. The waste rock shall be utilized for tailing pond embankment height increase, surface leveling works and also backfilling into mine voids. There shall be no increase in external dumps for waste rock. The capacity of the existing tailing dam will be increased to dispose the tailings by increasing the height of the embankment. Waste oil, used oil and other hazardous wastes will be safely stored in drums/tanks/covered shed and sold to authorized recyclers. Waste water will be recycled and reused in the beneficiation plant. Zero effluent discharge shall be maintained.

8. The project proponent submitted that Range of Water Table is from 10 m bgl to 7 m bgl (Pre-Monsoon Season) and 3 m bgl to 5 mbgl (Post-Monsoon Season). The present water requirement is 14000 KLD for existing operations. No additional requirement will be there for proposed 20 % expansion. Water requirement for industry shall be met from the existing source i.e., captive Tidi dam. The project proponent submitted that they obtained NOC from CGWA vide letter No.21-4(267)/CGWA/WR/2008-2185; 21-4(266)/CGWA/WR/2008 dated 11.12.2013 for a period of 3 years. The project proponent submitted the application for renewal of NOC vide its letter No.HZL/ZM/ENV/CGWA/2016-17/557 dated 09.12.2016.



9. The project proponent has submitted that 373625 saplings have been planted in area of 170.85 ha. Further, it is proposed to plant 55000 saplings. The total area under greenbelt will be 251.43 ha.

10. The project proponent submitted that the mine lease area of 3620 Ha includes a forest area of 1537.91 ha. The entire forest area was granted Forest Clearance by MoEF&CC vide letter no.8-1/1997-FC dated 15/16.06.1998 with a validity coterminous with mining lease including 114.94 ha area for surface use and 1422.97 ha for underground mining. Renewal of Forest Diversion was granted by the Ministry's vide letter no.8-1/1997-FC dated 23.02.2015. The project proponent reported that no protected area under international conventions or local legislation for its ecological, landscape, cultural or other related values exists within 15 km radius.

11. The project proponent submitted that there is Presence of Schedule-I species which includes Osprey, Indian Peafowl, White-rumped Vulture, Indian Leopard, Indian Pangolin, Crimson rose, Bengal Monitor Lizard, etc. The project proponent has submitted that the present Wildlife Conservation Plan is prepared for 2 projects, namely expansion of zinc-lead ore production and beneficiation capacities from 1.5 MTPA to 4.0 MTPA and 'expansion of the capacity 4.0 MTPA to 4.8 MTPA of zinc-lead ore production and beneficiation capacities from its existing underground mines. According to the SoP for the Wildlife Conservation Plan, the cost allotted for the wildlife conservation is Rs.1845 Lakhs. The implementation of wildlife conservation plan is planned till the mine life i.e., for the duration of next 10 years (till March 2030) in 3 phases of 4 years, 3 years and 3 years. Accordingly, costing is allotted for the 3 phases, along with presentation of total cost required for the implementations for next 10 years. The project proponent has reported that Conservation Plan for Schedule-I Species has not been approved by competent authority.

12. The project proponent submitted that the project is being a major mineral there is no requirement of District Survey Report.

12. The project proponent submitted that there will be marginal increase in traffic internally as well as outside the lease area due to expansion by 0.8 MTPA in existing 4.0 MTPA. There will be an increase of 20 vehicle trips per day within mine lease area (mines to mill within mine lease area) and 5 trucks outside mine lease (from beneficiation plant to HZL smelters) and per day for the transportation of 20% proposed expansion. The project proponent also submitted the mitigation measures such as (i) ore transportation from Mochia and Balaria Mine to central Mochia Shaft through covered conveyor belt; (ii) dust extraction system at transfer points; (iii) water sprinkling arrangement at transfer points & ore stockpile; (iv) regular water spraying on haul roads for ore transportation; (v) transportation is done in tarpaulin covered trucks; (vi) blacktop paved road (haul roads) within the mine boundary and outside; (vii) proper maintenance, oiling and greasing of vehicles is ensured; (viii) vehicle with valid PUC are being used for transportation; (ix) plantation along haul roads & greenbelt development along mine lease boundary and (x) continued and same will be maintained in future.

13. The project proponent submitted that public hearing is not applicable in this case.



14. The project proponent submitted that the fund allocated towards the Corporate Environment Responsibility (CER) is Rs.3.25 crores.

15. The project proponent reported that rehabilitation and resettlement (R&R) is not applicable.

16. The project proponent submitted that the funds allocated for Environment Management Plan (EMP) is Rs.64 crores (Capital) and Rs.2.9 crores (recurring per annum).

17. The project proponent submitted the EC compliance report has been certified from RO, MoEF&CC, Lucknow vide letter No.IV/ENV/R/Mine-484/794/2008/814 dated 07.10.2019.

18. The project proponent has submitted that CTO has been granted vide letter No. F(Mines)/Udaipur(Sarada)/53(1)/2016-2017/8193-8197 and Order No.2017-2018/Mines/9658 dated 28.12.2017 for the period from 01.01.2018 to 31.12.2022.

19. The project proponent reported that there is no Court Cases pending against the project and/or land in which the project is proposed to be set up.

20. The project proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of their knowledge and belief and they are aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance given, if any to the project will be revoked at their risk and cost. In addition to this, they hereby give undertaking that no activity/ construction/ expansion has since been taken up.

21. The project proponent submitted that cost of the project is Rs.1630 crores (existing Rs.1200 crore + proposed Rs.430 crore). The project proponent submitted that due to establishment of the project, large direct and indirect employment opportunities will be created. E-mail dated 15.09.2020 received from the project proponent wherein it was mentioned that the project on expansion will provide direct employment to 150 people (Total employment shall be 3400) of nearby area of mine site. Entrepreneurship development through ancillary or supporting industries/ businesses in the surrounding area will further increase the income levels of people.

22. The Committee during EAC meeting held on 19-21 August, 2020 observed that last public hearing was conducted on 29.09.2016 for expansion from 1.5 MTPA to 4.0 MTPA of ore production and beneficiation capacity. The Committee noted that the production capacity increased 20%, therefore, may be considered as per para 7(ii)(a) of the EIA Notification, 2006. The committee also observed that 55000 saplings to be planted by project proponent in the total area under greenbelt of 251.43 ha *inter alia* including lease boundary plantation of forests in the next 4-5 years. It was also advised to communicate to the Ministry regarding the surrender of land.

23. The Committee during EAC meeting held on 19-21 August, 2020 recommended the proposal of M/s. Hindustan Zinc Limited for expansion of Zawar Group of underground zinc-lead mines for proposed expansion from 4.0 MTPA to 4.8 MTPA zinc-lead ore and expansion



in beneficiation plant from 4.0 MTPA to 4.8 MTPA, from the mine lease area of 3620.0 ha located at MLNo.03/89 near village Zawar, Tehsil Girwa and Sarada, District Udaipur, Rajasthan under para 7(ii) (a) of EIA Notification, 2006 with specific conditions in addition to the conditions prescribed in the earlier EC dated 5th January, 2017.

24. The Ministry of Environment, forest and Climate Change has examined the proposal in accordance with the Environmental Impact Assessment Notification, 2006 and further amendments thereto; and after accepting the recommendation of EAC meeting held during 19-21 August, 2020, hereby decided to accord the amendment of Environmental Clearance (EC) under para 7(ii) for expansion from 4.0 MTPA to 4.8 MTPA zinc-lead ore and expansion in beneficiation plant from 4.0 MTPA to 4.8 MTPA from the mine lease area of 3620 ha located at village Zawar (including Bhaladia, Newatalai, Singhatwara, Tidi, Rava, Kodiyakhet, Kanpur, Dhavaditalai, Paduna, Udiyakhara, Nayakhara, Chanavada, Bara, Saru), Tehsil Girwa and Sarada, District Udaipur, Rajasthan State with following specific conditions in addition to the conditions prescribed in the earlier Environmental Clearance dated 5th January, 2017.

- (a) Gap plantation shall be carried in consultation with State Forest Department in the total mining lease area where the surface rights were not acquired. These plantations shall be maintained and monitoring to be done to achieve the survival rate of 90%.
- (b) The conservation plan for Schedule-I species reported in the study area namely, 1 reptilian (Bengal Monitor Lizard), 3 avifaunal (Osprey, Indian Peafowl and White-rumped Vulture), 2 mammals (Indian Pangolin and Indian Leopard) and 1 butterfly (Crimson Rose) should be prepared and implemented in consultation with State Forest Department including the recommendations of the Chief Wildlife Warden.
- (c) As proposed no additional water shall be used for the proposed expansion. The requirement shall be met from the existing daily water demand of 14,000 KLD, out of which 2,400 KLD water is used for mining purpose, 8,600 KLD for beneficiation plant and 3,000 KLD for domestic use which is drawn from Tidi Dam through pipeline.
- (d) The project proponent should obtain the NOC from the CGWA regarding the intersection of workings with the groundwater table.
- (e) Mist spraying arrangements shall be provided to suppress the dust emission at the loading, crushing and transfer points. The effective water spraying arrangements shall be made at the tailing dam to control the air borne dust.
- (f) The project proponent should implement all the additional measures that are proposed in the present application.

25. Further, as per Ministry's O.M No 22-34/2018-IA.III dated 16.01.2020 to comply with the direction made by Hon'ble Supreme Court on 8.01.2020 in W.P. (Civil) No 114/2014 in the matter Common Cause vs Union of India, *the mining lease holder shall after ceasing*

mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to other mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

26. Any appeal against this Environmental Clearance under EIA notification 2006 for expansion shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

27. This issues with the approval of Competent Authority.

Yours faithfully,
Pankaj Verma
(Pankaj Verma)
Scientist E

Copy to:

1. The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi-110 001.
2. The Secretary, Department of Mines & Geology, Government of Rajasthan, Secretariat, Jaipur.
3. The Secretary, Department of Environment, Government of Rajasthan, Secretariat, Jaipur.
4. The Secretary, Department of Forests, Government of Rajasthan, Secretariat, Jaipur.
5. The Chief Wildlife Warden, Government of Rajasthan, Jaipur.
6. The Dy. Director General of Forests, Ministry of Environment, Forest and Climate Change, Regional Office (CZ), Kendriya Bhawan, 5th Floor, Sector "H", Aliganj, Lucknow – 226020
7. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
8. The Member Secretary, Central Ground Water Authority, 18/11, Jam Nagar House, Man Singh Road, New Delhi-110011.
9. The Chairman, Rajasthan State Pollution Control Board, Jaipur, Rajasthan.
10. The Controller General, Indian Bureau of Mines, Indira Bhawan, Civil Lines, Nagpur-440 001.
11. The District Collector, Udaipur, District, Government of Rajasthan.
12. Guard File.
13. MoEF&CC Website.

Pankaj Verma
(Pankaj Verma)
Scientist E



Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongari, Jaipur-302 004
Phone: 0141-5159600,5159695 Fax: 0141-5159697



Registered

File No F(Mines)/Udaipur(Sarada)/53(1)/2016-2017/4491-4495

Order No 2020-2021/Mines/10213

Date: 12/01/2021

Unit Id : 10,974

M/s Hindustan Zinc Limited (Zawar Mines)

P.O.- Zawar Mines, Udaipur- 313 901,

District :Udaipur

E-Mail : hitendra.bhuptawat@vedanta.co.in

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 your **Major Mineral** Mine at near Village-**Zawar**, Tehsil-**Sarada**, District- **Udaipur (M.L.No-03/89-R-323/08)** .

Ref: (i) Your applications dated 28/12/2020
(ii) Received on 28/12/2020
(iii) Received at Head office on 25/12/2020

Sir,

In view of the details submitted vide your above referred applications/ documents, the **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 is hereby granted for carrying mining activities. This consent is subject to the following stipulations:-

- 1 That this consent is being granted in favour of **M/s. Hindustan Zinc Limited (Zawar Mines)**, a Mine of **Major Mineral** having **M.L.No.- 03/89-R-323/08 in an area measuring 3620.0000 Hectares** at/near Village-**Zawar** ,Tehsil-**Sarada**,District-**Udaipur**.
- 2 That this consent is valid for a period from **12/01/2021** to **31/12/2022**
- 3 That this consent is valid for following mining activities :-

Mineral	Permitted Mining Capacity
1 LEAD & ZINC MINING & CRUSHING	4.8000 MILLION TONNES/ ANNUM
2 POWER (D.G SET)	500.0000 KW
3 POWER (D.G SET)	250.0000 KW

- 4 That the project proponent will comply with the Standard as prescribed vide the Ministry of Environment, Forest and Climate Change notification no. GSR 826(E) dated 16th November, 2009 with respect to National Ambient Air Quality standards.





Head Office (Mines)

Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongari, Jaipur-302 004
Phone: 0141-5159600,5159695 Fax: 0141-5159697

Registered

File No F(Mines)/Udaipur(Sarada)/53(1)/2016-2017/4491-4495

Order No 2020-2021/Mines/10213

Date: 12/01/2021

Unit Id : 10,974

- 5 That this consent to establish/consent to operate is only for carrying out mining of mineral/ore and not for any processing/beneficiation or crushing/grinding of ore/mineral for which a separate application for consent to establish and/or consent to operate should be submitted. The project proponent is required to obtain separate consent to establish and consent to operate for carrying out mining of other minerals(s), if any or processing/beneficiation of such mineral(s) and for any addition/modification/alteration or change in process.
- 6 That this **Consent to Operate** is for mining / processing / beneficiation of product as mentioned above in **M.L.No.-03/89-R-323/08** and a separate **Consent to Operate** is required to be obtained for any other Mineral mining/ processing/ beneficiation Plant/process if any and for any addition/ modification/ alteration or change in process.
- 7 That the occupier/operator of mine shall ensure that all the conditions imposed in the Environmental Clearance granted by the Ministry of Environment, Forest and Climate Change vide letter No.J-11015/259/2012-IA. II (M), dated 05/01/2017 and further expansion issued vide letter No. J-11015/259/2012-IA. II (M), dated 16/10/2020 are strictly complied with.
- 8 That this consent to operate is valid for production of Lead & Zinc Ore Mining @ 4.80 Million TPA, DG Sets- 500 KW & 250 KW. For any change in product and/or increase in capacity/lease area, the mine has to seek fresh Environmental Clearance, consent to establish & consent to operate.
- 9 That the CTO granted by the State Board vide letter no F(Mines)/Udaipur(Sarada)/53(1)/2016-2017/8193-8197 dated 28/12/2017 shall be treated as null and void after grant of this consent.
- 10 That the lessee shall get renewal of permission for dewatering of ground Water in mine pit and intersection of Water table from of Central Ground Water Authority (CGWA), as the earlier permissions granted by CGWA vide letters dated 11/12/2013 stands expired.
- 11 That plantation shall be developed so as to cover at least 33% of the total land use for mining and allied activities as given in Approved Mining Plan and shall be maintained at all the time to maintain ambient air quality around the mine.
- 12 That ground water shall not be abstracted without prior permission of the Central Ground Water Authority (CGWA).
- 13 That haul roads should be regularly graded and compacted. Regular water sprinkling should be carried out on haul roads to minimize dust generations.
- 14 That adequate measure shall be taken for control of fugitive emissions from the areas prone to air pollution.





Head Office (Mines)

Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongari, Jaipur-302 004
Phone: 0141-5159600,5159695 Fax: 0141-5159697

Registered

File No F(Mines)/Udaipur(Sarada)/53(1)/2016-2017/4491-4495

Order No 2020-2021/Mines/10213

Date: 12/01/2021

Unit Id : 10,974

- 15 That you shall not establish/operate any stone crusher/mineral grinding/mineral processing plant within said lease without obtaining prior consent of the State Board.
- 16 That this consent to operate shall not be valid, if the lessee has not obtained permissions required, if any, from NBWL/Forest Department etc. with respect to Wild Life Sanctuary /National Parks/ Critical Tiger Habitats in compliance of various orders passed by any other law /act/rule/regulation or order of MOE&F and/or any Court / Tribunal time to time.
- 17 That regular water sprinkling should be carried out in critical areas prone to air pollution and having high levels of SPM and RSPM such as on haul road, loading and unloading points and transfer points.
- 18 That the lessee should dump the overburden in such a manner that it does not get washed away to nearby water tanks and lakes etc. during rainy season.
- 19 That no discharge of effluent shall be made within or outside the premises.
- 20 This consent to operate shall be subject to validity of mining lease.
- 21 That this consent to operate shall be subject to compliance of direction/order passed by Courts of Law in the matter, if any.
- 22 That the mine shall install adequately designed rain water harvesting structure for prevention and recharge of ground water in and around the lease area.
- 23 That the mine shall not allow making any obstacles to any natural water flow i.e. natural nallah/steam carrying rain water to any water body.
- 24 That the mine shall not allow unauthorized disposal of any solid waste on land inside or outside the premises.
- 25 That all other general conditions enclosed as Annexure shall be strictly complied with.
- 26 That this Consent is subject to the conditions as stated above and general conditions as stated in Annexure. Further, the mining unit will comply with the provisions of the Air (Prevention & Control of Pollution) Act, 1981 & Water (Prevention & Control of Pollution) Act, 1974 and any such conditions as may be specified from time to time by the State Board under the provisions of the aforesaid Acts.
- 27 That the grant of this **Consent to Operate** is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ project proponent.





Head Office (Mines)

Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongari, Jaipur-302 004
Phone: 0141-5159600,5159695 Fax: 0141-5159697

Registered

File No F(Mines)/Udaipur(Sarada)/53(1)/2016-2017/4491-4495

Order No 2020-2021/Mines/10213

Date: 12/01/2021

Unit Id : 10,974

28 That the grant of this **Consent to Operate** shall not, in any way, adversely affect or jeopardize the legal proceedings, if any, instituted in the past or that could be instituted against you by the State Board for violation of the provisions of the Act or the Rules made thereunder.

29 That the grant of this consent to establish/operate is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other legal instrument in force. The sole and complete responsibility, to comply with the conditons laid down in all other laws for the time-being in force, rests with the industry/unit/project proponent.

This bears approval of the competent authority.

Encl: As Above

Yours Sincerely

Group Incharge-Mines

(A): Copy To:-

- 1 Director, Department of Mines & Geology, Government of Rajasthan, Shastri Circle, Udaipur..
- 2 Regional Officer, Regional Office, Rajasthan State Pollution Control Board, Udaipur -please ensure compliance of the consent conditions and monitor time to time
- 3 Mining Engineer, Department of Mines & Geology, Government of Rajasthan, Udaipur - To inform that this consent has been issued from the environmental angle only, and ensuring compliance of any other law/act/rule/regulation or order of any Court/Tribunal is the sole responsibility of the project proponent and the concerned departments.
- 4 Master File .

(B):

- 1 The Additional PCCF (WL) and Chief Wild Life Warden, Aranya Bhawan, Jhalana Institutional Area, Jaipur / DCF(W), Udaipur - To inform that this consent has been issued from the environmental angle only, and ensuring compliance of any other law/act/rule/regulation or order of any Court/Tribunal is the sole responsibility of the project proponent and the concerned departments.

Group Incharge-Mines





Registered

File No : F(HDF)/Udaipur(Sarada)/1(1)/2020-2021/4885-4887

Order No : 2020-2021/HDF/3263

Date: 29/01/2021

Unit Id : 10974

M/s Hindustan Zinc Limited (Zawar Mines)

P.O.- Zawar Mines, Udaipur- 313 901, ,

District:Udaipur

Sub: Consent to Operate under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21(4) of Air (Prevention & Control of Pollution) Act, 1981.

Ref: Your application for Consent to Operate dated 28/12/2020 and subsequent correspondence.

Sir,

Consent to Operate under the provisions of section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 (hereinafter to be referred as the Water Act) and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981, (hereinafter to be referred as the Air Act) as amended to date and rules & the orders issued thereunder **is hereby granted** for your **Beneficiation plant** situated at **PO- Zawar Mines Zawar Tehsil: Sarada District: Udaipur**, Rajasthan, subject to the following conditions:-

- 1 That this Consent to Operate is valid for a period from **01/03/2021** to **31/12/2022**.
- 2 That this Consent is granted for manufacturing / producing following products / by products or carrying out the following activities or operation/processes or providing following services with capacities given below.

Particular	Type	Quantity with Unit
Beneficiation for Lead Zinc Ore	Activity	0.80 MILLION TONES PER ANNUM

- 3 That this consent to operate is for existing plant, process & capacity and separate consent to establish/operate is required to be taken for any addition / modification / alteration in process or change in capacity or change in fuel.
- 4 That the **Beneficiation plant** will comply with the standards as prescribed vide MOEF notification No. GSR 826(E) dated 16th November, 2009 with respect to National Ambient Air Quality Standards.
- 5 That this consent to operate is being issued for enhancement of production capacity of Lead Zinc Ore Beneficiation plant from 4.00 MTPA to 4.80 MTPA (20% increase) in the existing plant premises by debottlenecking of existing equipments. The industry has to seek fresh consent to establish for any change in product/by product/ process / service/activity and for any modification / alteration.





Head Office (HDF)

Rajasthan State Pollution Control Board

4, Institutional Area, Jhalana Doongari, Jaipur-302 004

Phone: 0141-5159600,5159695 Fax: 0141-5159697

Registered

File No : F(HDF)/Udaipur(Sarada)/1(1)/2020-2021/4885-4887

Order No: 2020-2021/HDF/3263

Date: 29/01/2021

Unit Id : 10974

- 6 That additional plant & machinery shall not be installed for increase in production capacity and same will be achieved by debottlenecking of existing equipments used for 4.00 MTPA production capacity by upgrading upto 4.80 MTPA (Mochia Crusher: 1.2 MTPA, Balaria Crusher: 1.6 MTPA & New Crusher: 2.0 MTPA).
- 7 That industry shall provide/upgrade & maintain adequate pollution control measures and suspended particulate matter (SPM) measured between 3 meters and 10 meters from any process equipment of a crushing unit shall not exceed 600 microgrammes per cubic meter.
- 8 That the industry shall comply with all the conditions of Environmental Clearance (E.C.) issued by the Ministry of Environment, Forest & Climate Change (MoEF& CC), Government of India, vide letter no. J-11015/259/2012-IA.II(M) dated 05.01.2017 and 16.10.2020.
- 9 That capital investment for increase in production capacity by debottlenecking of existing equipments is Rs. 170 Crore as per C.A. certificate submitted by the industry.
- 10 That total water consumption and waste water generation of the industry shall not exceed from existing as allowed under consent to operate order no 2017-2018/CPM/5114 dated 21.03.2018 due to proposed expansion in the production capacity by debottlenecking of existing equipments.
- 11 That the industry shall not abstract ground water without obtaining prior NOC/Permission from CGWA for withdrawal of ground water.
- 12 That no additional source of Air/Water pollution shall be installed without prior consent to establish from the State Board.
- 13 That the industry shall install adequately designed rain water harvesting structure for recharge of ground water in and around the area.
- 14 That industry shall comply with the provisions of Hazardous Waste (Management, Handling and Trans boundary Movement) Rules, 2016 and daily record of Hazardous waste generation and its disposal shall be maintained.
- 15 That the industry shall carryout effluent sampling/ stack monitoring/ ambient air quality monitoring and submit half yearly analysis report from the State Board laboratory/ laboratory recognized by Ministry of Environment, Forests and Climate Change (MoEF&CC), Government of India.
- 16 That the plantation of local species in the 33% of total area of the project shall be carried out.
- 17 That the industry shall submit the quarterly compliance report of all the above conditions to the State Board.





Head Office (HDF)

Rajasthan State Pollution Control Board
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Registered

File No : F(HDF)/Udaipur(Sarada)/1(1)/2020-2021/4885-4887

Order No : 2020-2021/HDF/3263

Date: 29/01/2021

Unit Id : 10974

18 That, notwithstanding anything provided hereinabove, the State Board shall have power and reserves its right, as contained **under section 27(2) of the Water Act and under section 21(6) of the Air Act** to review anyone or all the conditions imposed here in above and to make such variation as it deemed fit for the purpose of **Air Act & Water Act**.

19 That the grant of this **Consent to Operate** is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility to comply with the conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ project proponent.

20 That the grant of this **Consent to Operate** shall not, in any way, adversely affect or jeopardize the legal proceeding, if any, instituted in the past or that could be instituted against you by the State Board for violation of the provisions of the Act or the Rules made thereunder.

This **Consent to Operate** shall also be subject, besides the aforesaid specific conditions, to the general conditions given in the enclosed Annexure. The project proponent will comply with the provisions of the **Water Act and Air Act** and to such other conditions as may, from time to time , be specified, by the State Board under the provisions of the aforesaid Act(s). Please note that, non compliance of any of the above stated conditions would tantamount to revocation of **Consent to Operate** and project proponent / occupier shall be liable for legal action under the relevant provisions of the said Act(s).

This bears the approval of the competent authority.

Yours Sincerely

Group Incharge[HDF]

(A): **Copy To:-**

- 1 Regional Officer, Regional Office, Rajasthan State Pollution Control Board, Udaipur to ensure the compliance and submit analysis and monitoring reports within one month.
- 2 Master File.

Group Incharge[HDF]



Annexure VII a)_CTE Mines 4 to 4.8 MTPA

Head Office (Mines)



Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongari, Jaipur-302 004
Phone: 0141-5159600,5159695 Fax: 0141-5159697



Registered

File No F(Mines)/Udaipur(Sarada)/53(1)/2016-2017/4486-4490

Order No 2020-2021/Mines/10212

Date: 12/01/2021

Unit Id : 10,974

M/s Hindustan Zinc Limited (Zawar Mines)

P.O.- Zawar Mines, Udaipur- 313 901,

District :Udaipur

E-Mail : hitendra.bhuptawat@vedanta.co.in

Sub: Grant of Consent to Establish 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 your **Major Mineral** Mine at near Village-**Zawar**, Tehsil-**Sarada**, District- **Udaipur (M.L.No-03/89-R-323/08)** .

Ref: (i) Your applications dated 12/12/2020
(ii) Received on 12/12/2020
(iii) Received at Head office on 11/12/2020

Sir,

In view of the details submitted vide your above referred applications/ documents, the **Consent to Establish** 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 is hereby granted for carrying mining activities. This consent is subject to the following stipulations:-

- 1 That this consent is being granted in favour of **M/s. Hindustan Zinc Limited (Zawar Mines)**, a Mine of **Major Mineral** having **M.L.No.- 03/89-R-323/08 in an area measuring 3620.0000 Hectares** at/near Village-**Zawar** ,Tehsil-**Sarada**,District-**Udaipur**.
- 2 That this consent is valid for a period from **12/01/2021** to **31/12/2022** , or **commencement of production whichever is earlier**.
- 3 That this consent is valid for following mining activities :-

Mineral	Permitted Mining Capacity
1 LEAD & ZINC ORE MINING	0.8000 MILLION TONNES PER ANNUM

- 4 That the project proponent will comply with the Standard as prescribed vide the Ministry of Environment, Forest and Climate Change notification no. GSR 826(E) dated 16th November, 2009 with respect to National Ambient Air Quality standards.





Head Office (Mines)

Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongari, Jaipur-302 004
Phone: 0141-5159600,5159695 Fax: 0141-5159697

Registered

File No F(Mines)/Udaipur(Sarada)/53(1)/2016-2017/4486-4490

Order No 2020-2021/Mines/10212

Date: 12/01/2021

Unit Id : 10,974

- 5 That the occupier/operator of mine shall ensure that all the conditions imposed in the Environmental Clearance granted by the , vide letter No F.NO.J-11015/259/2012-IA-II(M) dated 16/10/2020 shall be strictly complied with.
- 6 That the occupier/operator of mine shall ensure that all the conditions imposed in the Forest Diversion Letter issued by the , vide letter No F.NO.8-1/1997-FC dated 23/01/2015 shall be strictly complied with.
- 7 That this consent to establish/consent to operate is only for carrying out mining of mineral/ore and not for any processing/beneficiation or crushing/grinding of ore/mineral for which a separate application for consent to establish and/or consent to operate should be submitted. The project proponent is required to obtain separate consent to establish and consent to operate for carrying out mining of other minerals(s), if any or processing/beneficiation of such mineral(s) and for any addition/modification/alteration or change in process.
- 8 That you shall not operate the mine without obtaining **Consent to Operate** from the Board.
- 9 That this **Consent to Establish** is for mining / processing / beneficiation of product as mentioned above in **M.L.No.-03/89-R-323/08** and a separate **Consent to Establish** is required to be obtained for any other Mineral mining/ processing/ beneficiation Plant/process if any and for any addition/ modification/ alteration or change in process.
- 10 That the occupier/operator of mine shall ensure that all the conditions imposed in the Environmental Clearance granted by the Ministry of Environment, Forest and Climate Change vide letter No.J-11015/259/2012-IA. II (M), dated 05/01/2017 and further expansion issued vide letter No.J-11015/259/2012-IA. II (M), dated 16/10/2020 are strictly complied with.
- 11 That this consent to establish is valid for production of Lead & Zine Ore Mining @ 0.80 Million TPA. For any change in product and/or increase in capacity/lease area, the mine has to seek fresh Environmental Clearance, consent to establish & consent to operate.
- 12 That the lessee shall get renewal of permission for dewatering of ground Water in mine pit and intersection of Water table from of Central Ground Water Authority (CGWA), as the earlier permissions granted by CGWA vide letters dated 11/12/2013 stands expired.
- 13 That plantation shall be developed so as to cover at least 33% of the total land use for mining and allied activities as given in Approved Mining Plan and shall be maintained at all the time to maintain ambient air quality around the mine.





Head Office (Mines)

Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongari, Jaipur-302 004
Phone: 0141-5159600,5159695 Fax: 0141-5159697

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File No F(Mines)/Udaipur(Sarada)/53(1)/2016-2017/4486-4490

Order No 2020-2021/Mines/10212

Date: 12/01/2021

Unit Id : 10,974

- 14 That ground water shall not be abstracted without prior permission of the Central Ground Water Authority (CGWA).
- 15 That haul roads should be regularly graded and compacted. Regular water sprinkling should be carried out on haul roads to minimize dust generations.
- 16 That adequate measure shall be taken for control of fugitive emissions from the areas prone to air pollution.
- 17 That you shall not establish/operate any stone crusher/mineral grinding/mineral processing plant within said lease without obtaining prior consent of the State Board.
- 18 That this consent to establish shall not be valid, if the lessee has not obtained permissions required, if any, from NBWL/Forest Department etc. with respect to Wild Life Sanctuary /National Parks/ Critical Tiger Habitats in compliance of various orders passed by any other law /act/rule/regulation or order of MOE&F and/or any Court / Tribunal time to time.
- 19 That regular water sprinkling should be carried out in critical areas prone to air pollution and having high levels of SPM and RSPM such as on haul road, loading and unloading points and transfer points.
- 20 That the lessee should dump the overburden in such a manner that it does not get washed away to nearby water tanks and lakes etc. during rainy season.
- 21 That no discharge of effluent shall be made within or outside the premises.
- 22 This consent to establish shall be subject to validity of mining lease.
- 23 That this consent to establish shall be subject to compliance of direction/order passed by Courts of Law in the matter, if any.
- 24 That the mine shall install adequately designed rain water harvesting structure for prevention and recharge of ground water in and around the lease area.
- 25 That the mine shall not allow making any obstacles to any natural water flow i.e. natural nallah/steam carrying rain water to any water body.
- 26 That the mine shall not allow unauthorized disposal of any solid waste on land inside or outside the premises.
- 27 That all other general conditions enclosed as **Annexure** shall be strictly complied with.
- 28 That this Consent is subject to the conditions as stated above and general conditions as stated in Annexure. Further, the mining unit will comply with the provisions of the Air (Prevention & Control of Pollution) Act, 1981 & Water (Prevention & Control of Pollution) Act, 1974 and any such conditions as may be specified from time to time by the State Board under the provisions of the aforesaid Acts.





Head Office (Mines)

Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongari, Jaipur-302 004
Phone: 0141-5159600,5159695 Fax: 0141-5159697

Registered

File No F(Mines)/Udaipur(Sarada)/53(1)/2016-2017/4486-4490

Order No 2020-2021/Mines/10212

Date: 12/01/2021

Unit Id : 10,974

- 29 That the grant of this **Consent to Establish** is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ project proponent.
- 30 That the grant of this **Consent to Establish** shall not, in any way, adversely affect or jeopardize the legal proceedings, if any, instituted in the past or that could be instituted against you by the State Board for violation of the provisions of the Act or the Rules made thereunder.
- 31 That the grant of this consent to establish/operate is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other legal instrument in force. The sole and complete responsibility, to comply with the conditons laid down in all other laws for the time-being in force, rests with the industry/unit/project proponent.

This bears approval of the competent authority.

Encl: As Above

Yours Sincerely

Group Incharge-Mines

(A): Copy To:-

- 1 Director, Department of Mines & Geology, Government of Rajasthan, Shastri Circle, Udaipur..
- 2 Regional Officer, Regional Office, Rajasthan State Pollution Control Board, Udaipur - please ensure compliance of the consent conditions and monitor time to time
- 3 Mining Engineer, Department of Mines & Geology, Government of Rajasthan, Udaipur - To inform that this consent has been issued from the environmental angle only, and ensuring compliance of any other law/act/rule/regulation or order of any Court/Tribunal is the sole responsibility of the project proponent and the concerned departments.
- 4 Master File .





Head Office (Mines)

Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongari, Jaipur-302 004
Phone: 0141-5159600,5159695 Fax: 0141-5159697

Registered

File No F(Mines)/Udaipur(Sarada)/53(1)/2016-2017/4486-4490

Order No 2020-2021/Mines/10212

Date: 12/01/2021

Unit Id : 10,974

(B):

- ¹ The Additional PCCF (WL) and Chief Wild Life Warden, Aranya Bhawan, Jhalana Institutional Area, Jaipur / DCF(W), Udaipur - To inform that this consent has been issued from the environmental angle only, and ensuring compliance of any other law/act/rule/regulation or order of any Court/Tribunal is the sole responsibility of the project proponent and the concerned departments.

Group Incharge-Mines





Registered

File No : F(HDF)/Udaipur(Sarada)/1(1)/2020-2021/4882-4884

Order No: 2020-2021/HDF/3262

Dispatch Date: 29/01/2021

Unit Id : 10974

M/s Hindustan Zinc Limited (Zawar Mines)

P.O.- Zawar Mines, Udaipur- 313 901, ,

District:Udaipur

Sub: Consent to Establish under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21(4) of Air (Prevention & Control of Pollution) Act, 1981.

Ref: Your application(s) for Consent to Establish dated 12/12/2020 and subsequent correspondence.

Sir,

Consent to Establish under the provisions of section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 (hereinafter to be referred as the Water Act) and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981, (hereinafter to be referred as the Air Act) as amended to date and rules & the orders issued thereunder ,**is hereby granted** for your **Beneficiation plant** situated / proposed at **PO- Zawar Mines Zawar Tehsil: Sarada District: Udaipur** , Rajasthan under the provisions of the said Act(s). This consent is granted on the basis of examination of the information furnished by you in consent application(s) and the documents submitted therewith, subject to the following conditions:-

- 1 That this Consent to Establish is valid for a period from **29/01/2021 to 31/12/2025 or date of Commencement of production / commissioning of the project or activities whichever is earlier .**
- 2 That this Consent is granted for manufacturing / producing following products / by products or carrying out the following activities or operation/processes or providing following services with capacities given below.

Particular	Type	Quantity / Capacity
Beneficiation for Lead Zinc Ore	Activity	0.80 MILLION TONES PER ANNUM

- 3 That in case of any increase in capacity or addition / modification / alteration or change in product mix or process or raw material or fuel the project proponent is required to obtain fresh consent to establish.
- 4 That the control equipment as proposed by the applicant shall be installed before trial operation is started for which prior consent to operate under the provision of the **Water Act and Air Act** shall be obtained. This consent to establish shall not be treated as consent to operate.





Head Office (HDF)

Rajasthan State Pollution Control Board

4, Institutional Area, Jhalana Doongari, Jaipur-302

Phone: 0141-5159600, 5159695 Fax: 0141-5159697

Registered

File No : F(HDF)/Udaipur(Sarada)/1(1)/2020-2021/4882-4884

Order No: 2020-2021/HDF/3262

Dispatch Date: 29/01/2021

Unit Id : 10974

- 5 That the **Beneficiation plant** will comply with the standards as prescribed vide MOEF notification No. GSR 826(E) dated 16th November, 2009 with respect to National Ambient Air Quality Standards.
- 6 That this consent to establish is being issued for enhancement of production capacity of Lead Zinc Ore Beneficiation plant from 4.00 MTPA to 4.80 MTPA (20 % increase) in the existing plant premises by debottlenecking of existing equipments. The industry has to seek fresh consent to establish for any change in product/by product/ process / service/activity and for any modification / alteration.
- 7 That additional plant & machinery shall not be installed for increase in production capacity and same will be achieved by debottlenecking of existing equipments used for 4.00 MTPA production capacity by upgrading upto 4.80 MTPA (Mochia Crusher: 1.2 MTPA, Balaria Crusher: 1.6 MTPA & New Crusher: 2.0 MTPA).
- 8 That the industry shall comply with all the conditions of Environmental Clearance (E.C.) issued by the Ministry of Environment, Forest & Climate Change (MoEF& CC), Government of India, vide letter no. J-11015/259/2012-IA.II(M) dated 05.01.2017 and 16.10.2020.
- 9 That proposed capital investment for increase in production capacity by debottlenecking of existing equipments is Rs. 170 Crore as per C.A. certificate submitted by the industry.
- 10 That total water consumption and waste water generation of the industry shall not exceed from existing as allowed under consent to operate order no 2017-2018/CPM/5114 dated 21.03.2018 due to proposed expansion in the production capacity by debottlenecking of existing equipments.
- 11 That the industry shall not abstract ground water without obtaining prior NOC/Permission from CGWA for withdrawal of ground water.
- 12 That no additional source of Air/Water pollution shall be installed without prior consent to establish from the State Board.
- 13 That the industry shall install adequately designed rain water harvesting structure for recharge of ground water in and around the area.
- 14 That industry shall comply with the provisions of Hazardous Waste (Management, Handling and Trans boundary Movement) Rules, 2016 and daily record of Hazardous waste generation and its disposal shall be maintained.
- 15 That the plantation of local species in the 33% of total area of the project shall be carried out.





Head Office (HDF)

Rajasthan State Pollution Control Board

4, Institutional Area, Jhalana Doongari, Jaipur-302

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File No : F(HDF)/Udaipur(Sarada)/1(1)/2020-2021/4882-4884

Order No: 2020-2021/HDF/3262

Dispatch Date: 29/01/2021

Unit Id : 10974

16 That, notwithstanding anything provided hereinabove, the State Board shall have power and reserves its right, as contained **under section 27(2) of the Water Act and under section 21(6) of the Air Act** to review anyone or all the conditions imposed here in above and to make such variation as it deemed fit for the purpose of compliance of the **Water Act and Air Act**.

17 That the grant of this **Consent to Establish** is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ project proponent.

18 That the grant of this **Consent to Establish** shall not, in any way, adversely affect or jeopardize the legal proceedings, if any, instituted in the past or that could be instituted against you by the State Board for violation of the provisions of the Act or the Rules made thereunder.

This **Consent to Establish** shall also be subject, beside the aforesaid specific conditions, to the general conditions given in the enclosed Annexure. The project proponent will comply with the provisions of the **Water Act and Air Act** and to such other conditions as may, from time to time, be specified by the State Board under the provisions of the aforesaid Act(s). Please note that, non compliance of any of the above stated conditions would tantamount to revocation of **Consent to Establish** and project proponent / occupier shall be liable for legal action under the the relevant provisions of the said Act(s).

This bears the approval of the competent authority.

Yours Sincerely

Group Incharge[HDF]

(A): **Copy To:-**

- 1 Regional Officer, Regional Office, Rajasthan State Pollution Control Board, Udaipur to ensure the compliance.
- 2 Master File.





Head Office (HDF)

Rajasthan State Pollution Control Board

4, Institutional Area, Jhalana Doongari, Jaipur-302

Phone: 0141-5159600,5159695 Fax: 0141-5159697

Registered

File No : F(HDF)/Udaipur(Sarada)/1(1)/2020-2021/4882-4884

Order No : 2020-2021/HDF/3262

Dispatch Date: 29/01/2021

Unit Id : 10974

Group Incharge[HDF]



Paryavaran Bhawan,
 CGO Complex,
 Lodhi Road,
 New Delhi-110 003.

Dated: 15.6.1998

-16

To
 The Secretary (Forests),
 Govt. of Rajasthan,
 JAIPUR.

Sub:- Diversion of 114.94 HA. of Surface forest land and 1537.91 ha. for underground mining for renewal of Zawar mining lease in favour of M/S Hindustan Zinc Ltd. in Udaipur district, Rajasthan.

Sir,

I am directed to refer to your letter No.P.1(11)Forest/97 dated 13.1.97 on the above mentioned subject seeking prior approval of the Central Government in accordance with Section-2 of the Forest (Conservation) Act, 1980.

After careful consideration of the proposal of the State Government, the Central Government hereby conveys its approval under Section-2 of the Forest (Conservation) Act, for diversion of 114.94 ha. of surface forest land and 1537.91 ha. for underground mining for renewal of Zawar mining lease in favour of M/S Hindustan Zinc Ltd. in Udaipur district of Rajasthan, subject to following conditions:-

- (i) Legal status of forest land shall remain unchanged.
- (ii) Compensatory afforestation over 459.76.9 ha. of degraded forest land shall be raised at the cost of user agency.
- (iii) The forest area being diverted shall be demarcated by RCC pillars on ground at the cost of user agency.
- (iv) Protection, Regeneration and maintenance of safety zone and enrichment plantation to an extent of one and half times of safety zone area over degraded forest elsewhere shall be done at the project cost.
- (v) Balance forest area shall be surrendered to forest department and adequate funds shall be provided to forest department for its reclamation.
- (vi) Reclamation of mined out area will be done including that of tailing dam to the satisfaction of forest department.
- (vii) The approval of mining lease will be for 20 years coterminus with lease under MMRD Act and subject to Environment clearance under EIA Notification, 1994.

- (viii) The forest land shall not be used for any purpose other than that specified in the proposal.
- (ix) Any other condition that the State Government may impose from time to time.

Yours faithfully,

(V.B. KUMAR)
ASSTT. INSPECTOR GENERAL OF FORESTS

Copy to:-

1. Principal Chief Conservator of Forests, Govt. of Rajasthan, Jaipur.
2. Nodal Officer, Office of PCCF, Govt. of Rajasthan, Jaipur.
3. The CCF (Central), Regional Office, Lucknow.
4. RO(HQ), New Delhi.
5. Guard File.

V.B. Kumar
16/6

(V.B. KUMAR)
ASSTT. INSPECTOR GENERAL OF FORESTS

*Served
16/6/68*

Ac

Annexure IX_FC-2013 & 2015 In
principle approval & renewal

F. No. 8-1/1997-FC
Government of India
Ministry of Environment & Forests
(FC Division)

Paryavaran Bhawan, CGO Complex,
Lodhi Road, New Delhi-110 510.
Dated: 24th January, 2013

To
The Principal Secretary (Forests),
Government of Rajasthan,
Jaipur.

Sub: Renewal of mining lease for diversion of 114.94 ha of forest land for surface rights and 1422.97 ha for underground mining (total forest land-1537.91 ha) of Zawar mines of M/s Hindustan Zinc Limited for mining of lead, zinc & silver in Udaipur district of Rajasthan.

Sir,

I am directed to refer to the State Government's letter no. P-1(4)/2010 dated 27.01.2009 on the subject mentioned above seeking prior approval of the Central Government under section-2 of the Forest (Conservation) Act, 1980 and to say that the proposal has been examined by the Forest Advisory Committee constituted by the Central Government under section-3 of the said Act.

2. After careful examination of the proposal of the State Government and on the basis of the recommendation of the Forest Advisory Committee, the Central Government hereby conveys the 'in-principle' approval for renewal of mining lease for diversion of 114.94 ha of forest land for surface rights and 1422.97 ha for underground mining (total forest land-1537.91 ha) of Zawar mines of M/s Hindustan Zinc Limited for mining of lead, zinc & silver in Udaipur district of Rajasthan subject to fulfillment of the following conditions:

- i. Legal Status of the diverted forests shall remain unchanged;
- ii. Wherever possible and technically feasible, the User Agency shall undertake by involving local community, the afforestation measures in the blanks within the lease area, as well as along the roads outside the lease area diverted under this approval, in consultation with the State Forest Department at the project cost;
- iii. Fencing, protection and regeneration of the safety zone area (7.5 meter strip all along the outer boundary of the mining lease area) shall be done at the project cost. Besides this, afforestation on degraded forest land, to be selected elsewhere, measuring one and a half times the area under safety zone, shall also be done at the project cost;

Shr

(12)

F. No. 8-1/1997-FC
Government of India
Ministry of Environment & Forests
(FC Division)

Paryavaran Bhawan, CGO Complex,
Lodhi Road, New Delhi-110 510.
Dated: 23rd January, 2015

To
The Principal Secretary (Forests),
Government of Rajasthan,
Jaipur.

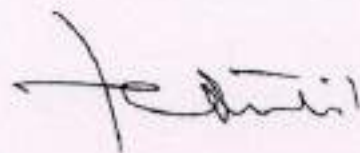
Sub: **Renewal of mining lease for diversion of 114.94 ha of forest land for surface rights and 1422.97 ha for underground mining (total forest land-1537.91 ha) of Zawar mines of M/s Hindustan Zinc Limited for mining of lead, zinc & silver in Udaipur district of Rajasthan.**

Sir,

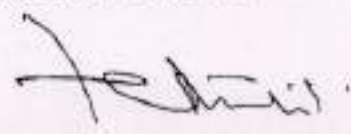
I am directed to refer to the State Government's letter no. P-1(4)/2010 dated 27.01.2009 on the subject mentioned above seeking prior approval of the Central Government under section-2 of the Forest (Conservation) Act, 1980. After careful examination of the proposal by the Forest Advisory Committee constituted under Section-3 of the said Act, 'in-principle' approval was granted vide this Ministry's letter of even number dated 24.01.2013 read with letter dated 29.04.2013 and 16.05.2013 subject to certain conditions prescribed therein. The State Government has furnished compliance report in respect of the conditions stipulated in the 'in-principle' approval and has requested the Central Government to grant final approval.

In this connection, I am directed to say that on the basis of the compliance report furnished by the State Government vide letter no. F-16/2009/FCA/Pramuvansh/421 dated 24.01.2014, 13.11.2014 and 19.01.2015, final approval of the Central Government is hereby granted under Section-2 of the Forest (Conservation) Act, 1980 for renewal of mining lease for diversion of 114.94 ha of forest land for surface rights and 1422.97 ha for underground mining (total forest land-1537.91 ha) of Zawar mines of M/s Hindustan Zinc Limited for mining of lead, zinc & silver in Udaipur district of Rajasthan subject to fulfillment of the following conditions:

- i. Legal Status of the diverted forests shall remain unchanged;
- ii. Wherever possible and technically feasible, the User Agency shall undertake by involving local community, the afforestation measures in the blanks within the lease area, as well as along the roads outside the lease area diverted under this approval, in consultation with the State Forest Department at the project cost;
- iii. Following activities shall be undertaken by the user agency for the management of safety zone:
 - (a) User agency shall ensure demarcation of boundary of safety zone (7.5 meter strip all along the outer boundary of the mining lease area), and its protection by erecting adequate number of 4 feet high RCC boundary pillars inscribed with DGPS coordinates and deploying adequate number of watchers under the supervision of the State Forest Department.



- (b) In case of the mining leases adjoining the habitation stretch of the boundary of the safety zone of the lease adjacent to the habitation/roads should be properly fenced by the user agency at the project cost to protect the vegetation /regeneration activities in the safety zone.
 - (c) Safety zone shall be maintained as green belt around the mining lease and to ensure dense canopy cover in the area, regeneration shall be taken in this area by the user agency at the project cost under the supervision of the State Forest Department.
 - (d) Afforestation on degraded forest land, to be selected elsewhere, measuring one and a half times the area under safety zone shall also be done by the user agency at the project cost under the supervision of the State Forest Department.
- iv. Though the forest area diverted will be used for underground mining which may not affect the surface area of the lease yet wherever required following activities shall be undertaken by the user agency under the supervision of the State Forest Department at the project cost:
- a. Appropriate mitigative measures to minimize soil erosion and choking of streams;
 - b. Planting of adequate drought hardy plant species and sowing of seeds in the appropriate area within the mining lease to arrest soil erosion;
 - c. Construction of check dams, retention /toe walls along the contour to arrest sliding down of the excavated material;
 - d. Stabilize the overburden dumps by appropriate grading/benching so as to ensure that that angles of repose at any given place is less than 28°; and
 - e. Strict adherence to the prescribed top soil management;
- v. User agency either himself or through the State Forest Department shall undertake gap planting and soil & moisture conservation activities to restock and rejuvenate the degraded open forests (having crown density less than 0.40), if any, located in the area within 100 m. from outer perimeter of the mining lease;
- vi. The user agency shall undertake mining in a phased manner after taking due care for reclamation of the mined over area. The concurrent reclamation plan as per the approved mining plan shall be executed by the User Agency from the very first year, and an annual report on implementation thereof shall be submitted to the Nodal Officer, Forest (Conservation) Act, 1980, in the concerned State Government and the concerned Regional Office of the Ministry. If it is found from the annual report that the activities indicated in the concurrent reclamation plan are not being executed by the User Agency, the Nodal Officer or the Chief Conservator of Forests (Central) may direct that the mining activities shall remain suspended till such time, such reclamation activities are satisfactorily executed;
- vii. The period of diversion of the said forest land under this approval shall be for a period co-terminus with the period of the mining lease proposed to be granted under the Mines and Minerals (Development & Regulating) Act, 1957, or Rules framed



there under;

- viii. The User Agency shall pay the additional NPV, if so determined, as per the final decision of Hon'ble Supreme Court of India;
- ix. The boundary of diverted forest land shall be demarcated on ground at the project cost, by erecting 1.5 feet high reinforced cement concrete pillars, each inscribed with its serial number, forward and back bearing and distance from pillar to pillar;
- x. In case of under-ground mines, area on surface shall be fenced and afforested from the funds to be provided by the user agency;
- xi. The user agency shall undertake de-silting of the village tanks and other water bodies located within five km from the mine lease boundary so as to mitigate the impact of siltation of such tanks/water bodies, whenever required;
- xii. The user agency shall undertake greening of villages situated around the mine by planting fuel wood, fodder and agro-forestry plantations apart from creation of green belts;
- xiii. The user agency shall ensure establishment of appropriate soil and moisture conservation structures including check dams in the mining lease area;
- xiv. The user agency shall ensure following under CSR to cater to the need of households of company employees and labourer living within one km from the outer boundary of the Zawar mines who are mainly dependent on forests for their fuel wood retirement:
 - (a) Distribute gas connection and minimum 9 gas cylinders free of cost to all the labourers employed by the Company or its contractors;
 - (b) Solar power light installation in all the habitations in and within one km of the lease shall be completed within a period of 3 years and shall be maintained for proper functioning including replacement for the entire lease period;
 - (c) Installation of Biogas plant of sufficient capacity in accordance with the livestock population of the village to meet the energy need of the household;
 - (d) Plantation activity - 50 ha per annum over the available land;
- xv. Any tree felling shall be done only when it is unavoidable under strict supervision of the State Forest Department;
- xvi. No labour camps shall be set up inside the forest area;
- xvii. No damage to the flora and fauna of the area shall be caused;
- xviii. The forest land shall not be used for any purpose other than that specified in the proposal;
- xix. The layout plan of the proposal shall not be changed without the prior approval of the Central Government;
- xx. The forest land proposed to be diverted shall under no circumstances be transferred to any other agency, department or person without prior approval of the Central

Government;

- xxi. The user agency will obtain Environmental clearance and any other clearances required for such project before the final approval, if applicable;
- xxii. The user agency will surrender equal extent of area duly reclaimed and afforested from the already diverted forest areas;
- xxiii. The user agency shall submit the annual self compliance report in respect of the above conditions to the State Government and to the concerned Regional Office of the Ministry regularly;
- xxiv. The State Government shall ensure compliances of all conditions for which undertakings have been submitted by the User Agency.
- xxv. The Hon'ble Supreme Court vide its order dated 19.02.2010 passed in IA. No 828 in W. P. No. 202 of 1995 has directed the Forest Survey of India (FSI) to carry out the satellite imagery work of the Aravalli Hills which is yet to be completed. The outcome of the study and final order of the Hon'ble Supreme Court will be binding on the user agency.
- xxvi. All other conditions stipulated in the Stage-I approval for which the user agency has submitted undertakings shall be complied with;
- xxvii. The user agency shall submit the annual self compliance report in respect of the above conditions to the State Government and to the concerned Regional Office of the Ministry regularly;
- xxviii. Any other condition that the concerned Regional Office of this Ministry may stipulate, from time to time, in the interest of conservation, protection and development of forests & wildlife;
- xxix. The User Agency and the State Government shall ensure compliance to provisions of the all Acts, Rules, Regulations and Guidelines, for the time being in force, as applicable to the project.

Yours faithfully,

(T. C. Nautiyal)

Assistant Inspector General of Forests

Copy to:

1. The PCCF, Government of Rajasthan, Jaipur.
2. The Addl. PCCF (Central), Regional Office, Lucknow.
3. The Nodal Officer (FCA), o/o PCCF, Government of Rajasthan, Jaipur.
4. The User Agency (M/s Hindustan Zinc Limited, Zawar Mines, Udair 313 901, Rajasthan).
5. The Monitoring Cell, FC Division, MoEF, New Delhi.
6. Guard File.

(T. C. Nautiyal)

Assistant Inspector General of Forests

- iv. Following activities shall be undertaken by the user agency under the supervision of the State Forest Department at the project cost:
- a. Preparation and implementation of a plan containing appropriate mitigative measures to minimize soil erosion and choking of streams;
 - b. Planting of adequate drought hardy plant species and sowing of seeds in the appropriate area within the mining lease to arrest soil erosion;
 - c. Construction of check dams, retention /toe walls along the contour to arrest sliding down of the excavated material;
 - d. Stabilize the overburden dumps by appropriate grading/benching so as to ensure that that angles of repose at any given place is less than 28° ; and
 - e. Strict adherence to the prescribed top soil management;
- v. User agency either himself or through the State Forest Department shall undertake gap planting and soil & moisture conservation activities to restock and rejuvenate the degraded open forests (having crown density less than 0.40), if any, located in the area within 100 m. from outer perimeter of the mining lease;
- vi. The user agency shall undertake mining in a phased manner after taking due care for reclamation of the mined over area. The concurrent reclamation plan as per the approved mining plan shall be executed by the User Agency from the very first year, and an annual report on implementation thereof shall be submitted to the Nodal Officer, Forest (Conservation) Act, 1980, in the concerned State Government and the concerned Regional Office of the Ministry. If it is found from the annual report that the activities indicated in the concurrent reclamation plan are not being executed by the User Agency, the Nodal Officer or the Chief Conservator of Forests (Central) may direct that the mining activities shall remain suspended till such time, such reclamation activities are satisfactorily executed;
- vii. The period of diversion of the said forest land under this approval shall be for a period co-terminus with the period of the mining lease proposed to be granted under the Mines and Minerals (Development & Regulating) Act, 1957, or Rules framed there under, subject to a maximum period of 30 years;
- viii. The State Government shall charge the Net Present Value of the forest area diverted under this proposal from the User Agency as per the Judgement of the Hon'ble Supreme Court of India dated 28.03.2008 & 09.05.2008 in IA No. 566 in WP (C) No. 202/1995 and as per the guidelines issued by this Ministry vide letter No. 5-3/2007-FC dated 05.02.2009 in this regard;
- ix. The User Agency shall furnish an undertaking to pay the additional NPV, if so

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determined, as per the final decision of Hon'ble Supreme Court of India,

- x. All the funds received from the user agency under the project, except the funds realized for regeneration/ demarcation of safety zone, shall be transferred to Ad-hoc CAMPA in the Account pertaining to the State concerned;
- xi. The boundary of the diverted forest land, mining lease and safety zone, as applicable, shall be demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, forward and back bearing and distance from pillar to pillar;
- xii. In case of under-ground mines, area on surface shall be fenced and afforested from the funds to be provided by the user agency;
- xiii. The user agency shall undertake de-silting of the village tanks and other water bodies located within five km from the mine lease boundary so as to mitigate the impact of siltation of such tanks/water bodies, whenever required;
- xiv. The user agency shall undertake greening of villages situated around the mine by planting fuel wood, fodder and agro-forestry plantations apart from creation of green belts;
- xv. The user agency shall ensure establishment of appropriate soil and moisture conservation structures including check dams in the mining lease area;
- xvi. Additional conditions under CSR to cater to the need of households of company employees and labourer living within one km from the outer boundary of the Zawar mines who are mainly dependent on forests for their fuel wood retirement:
 - (a) Distribute gas connection and minimum 9 gas cylinders free of cost to all the labourers employed by the Company or its contractors;
 - (b) Solar power light installation in all the habitations in and within one km of the lease shall be completed within a period of 3 years and shall be maintained for proper functioning including replacement for the entire lease period;
 - (c) Installation of Biogas plant of sufficient capacity in accordance with the livestock population of the village to meet the energy need of the household;
 - (f) Plantation activity - 50 ha per annum over the available land;
- xvii. Any tree felling shall be done only when it is unavoidable under strict supervision of the State Forest Department;

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- xviii. No labour camps shall be set up inside the forest area;
- xix. No damage to the flora and fauna of the area shall be caused;
- xx. The forest land shall not be used for any purpose other than that specified in the proposal;
- xxi. The layout plan of the proposal shall not be changed without the prior approval of the Central Government;
- xxii. The forest land proposed to be diverted shall under no circumstances be transferred to any other agency, department or person without prior approval of the Central Government;
- xxiii. The user agency will obtain Environmental clearance and any other clearances required for such project before the final approval, if applicable;
- xxiv. The user agency will surrender equal extent of area duly reclaimed and afforested from the already diverted forest areas;
- xxv. The State Government shall complete settlement of rights, in terms of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, if any, on the forest land to be diverted and submit the documentary evidence as prescribed by this Ministry in its letter No. 11-9/1998-FC (pt.) dated 03.08.2009, in support thereof;
- xxvi. The user agency shall submit the annual self compliance report in respect of the above conditions to the State Government and to the concerned Regional Office of the Ministry regularly;
- xxvii. Any other condition that the concerned Regional Office of this Ministry may stipulate, from time to time, in the interest of conservation, protection and development of forests & wildlife;
- xxviii. The Hon^{ble} Supreme Court vide its order dated 19.02.2010 passed in IA. No 828 in W. P. No. 202 of 1995 has directed the Forest Survey of India (FSI) to carry out delineation work of the Aravalli Hills which is yet to be completed by the FSI. This approval shall be subject to the outcome of delineation work being undertaken by the FSI. If the forest land proposed to be diverted is found to be part of Aravalli Hills, the approval granted under the Forest (Conservation) Act, 1980 shall stand automatically cancelled. The Ministry shall ensure the location of the mine, *vis-a-vis*, Aravalli Hills before issue of final approval.
- xxix. The User Agency and the State Government shall ensure compliance to provisions of the all Acts, Rules, Regulations and Guidelines, for the time being in force, as applicable to the project.

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3. After receipt of the compliance report on the fulfillment of the above mentioned conditions contained in para 2 above, from the State Government of Jharkhand, formal approval will be issued in this regard under Section 2 of the Forest (Conservation) Act, 1980.

Yours faithfully,

(Shiv Pal Singh)
Sr. Assistant Inspector General of forests

Copy to:

1. The PCCF, Govt. of Rajasthan, Jaipur for information.
2. The Addl. PCCF (Central), Regional Office, Lucknow.
3. The Nodal Officer (FCA), o/o PCCF, Jaipur.
4. The User Agency.
5. The Monitoring Cell.
6. Guard File.

Shiv 24/1/13
(Shiv Pal Singh)
Sr. Assistant Inspector General of forests

Annexure X_Ack Slip for 68.95 Ha forest diversion

Acknowledgement Slip

This is to certify that hard copy of the proposal seeking prior approval of Central Government under the Forest (Conservation) Act 1980, as per details given below, along with all necessary enclosures has been received in the Office of the Rajasthan on 16/03/2021.

1. **Proposal No. :** FP/RJ/MIN/25404/2017

2. **Proposal Name:** Diversion of 68.95 ha. Forest Land for Surface Rights for expansion of facilities related to Mining and Beneficiation Plant for enhancing the Production Capacity of Zawar Mines (ML No.-3/89) in Tehsil - Girwa & Sarada, District - Udaipur, Rajasthan by Hindustan Zinc Ltd.

3. **Category of the Proposal:** Mining

4. **Date of Submission:** 16/05/2017

5. **Name of the User Agency with Contact Details**

Name: Kishore Kumar S


Mobile No. : 9799995890

State: Rajasthan

District: Udaipur

Pincode: 313901

6. **Area Applied (ha.):** 68.95


16/3/2021



16/3/21 (System Administrator)

Director Zawar SBU
Hindustan Zinc Limited
Zawar Mines
District Udaipur (Raj)
Pin 313901

2021/3/16 13:28



ज़ार मइन्स
पिन कोड - 313901
जिला - उदयपुर (राज.)

HINDUSTAN ZINC LIMITED
हिन्दुस्तान जिंक लिमिटेड

Telephone - (0294) 2726600, Fax-2726243

Zawar Mines
PIN Code - 313901
Dist-Udaipur (Raj.)

HZL/ZM/ENV/2021/137

Date: 16/03/2021

To,

The District Collector
Udaipur, Rajasthan

Subject: Submission of Hard Copy of Forest Diversion Proposal for Scheduled Tribes and Other Traditional Forest Dwellers (STOTFD) Certificate wrt "Diversion of 68.95 ha. Forest Land for expansion of facilities related to Mining and Beneficiation Plant for enhancing the Production Capacity of Zawar Mines (ML No.-3/89) in Tehsil - Girwa & Sarada, District - Udaipur, Rajasthan by Hindustan Zinc Limited".

Sir,

We would like to inform that, Hindustan Zinc Limited, Zawar Mines, Udaipur has submitted the Forest Diversion Proposal of 68.95 ha. Forest Land to FCA Nodal Officer, Jaipur under FCA, 1980 Act. for expansion of facilities related to Mining and Beneficiation Plant for enhancing the Production Capacity of Zawar Mines (ML No.-3/89) in Tehsil - Girwa & Sarada, District - Udaipur, Rajasthan

In this context, as per the Ministry of Environment and Forest (MoEF) Notification and FCA Nodal Officer requirement, Scheduled Tribes and Other Traditional Forest Dwellers (STOTFD) Certificate is required to proceed the Forest Diversion Proposal, therefore we are herewith submitting the hard copy of Forest Diversion Proposal and request you to kindly provide the STOTFD Certificate at earliest.

Proposal Details:

- Proposal No.: FP/RJ/MIN/25404/2017
- Name of Project for which Forest Land is required: Diversion of 68.95 ha. Forest Land for Surface Rights for expansion of facilities related to Mining and Beneficiation Plant for enhancing the Production Capacity of Zawar Mines (ML No.-3/89) in Tehsil - Girwa & Sarada, District - Udaipur, Rajasthan by Hindustan Zinc Ltd.
- State: Rajasthan
- Category of the Project: Mining
- Area of forest land proposed for diversion (in ha.): 68.95

Thanking You.

Yours faithfully

(Kishore Kumar S)
Director, Zawar Mine SBU
Hindustan Zinc Ltd.

Director Zawar SBU
Hindustan Zinc Limited
Zawar Mines
District Udaipur (Raj.)
Pin 313901

Regd. Office: Yashad Bhawan, Udaipur (Rajasthan) - 313004
Website: www.hzindia.com

O/c

2021/3/16 13:28

Government of Rajasthan
Office of Mining Engineer, Udaipur Div Udaipur

Production Details of Lease

Name of Lessee- M/s HZL

Mineral Lead, Zinc Silver

Near Village
Zawar

Tehsil Sarada

Dist Udaipur

Lease
Area

3620 Hectares

Lease No

M.L 3/89

Year	Production as per Approved Mine Plan (t)	Ore Production(t)	Ref No of Approved Mine Plan With Date	Ore Beneficiation (t)
1974-75		591865		628590
1975-76		714470		715064
1976-77		834580		808508
1977-78		940526		916924
1978-79		1090332		1145089
1979-80		986126		899580
1980-81		848936		811505
1981-82		946272		903205
1982-83		847658		837379
1983-84		1094661		1104267
1984-85		954445		965471
1985-86		989334		1014614
1986-87		1012261		1012076
1987-88		935000		935005
1988-89		1030431		1042717
1989-90		986732		970467
1990-91	4000 tpd, 12 Lac ton per Year	1045084	682(23)(103)/89- MCCM(N) UDP Dated 20.10.90	1029705
1991-92		954987		967493
1992-93		1016898		1022848
1993-94		860138		850836
1994-95		734102		725900
1995-96		755870		770030
1996-97		810000		780595
1997-98		903850		922763
1998-99		853550		873412
1999-00		864150		855517
2000-01		778100		802551
2001-02		696800		701251
2002-03		747740		746601
2003-04		851100		836000

Zawar Mines has integrated ore production and ore treatment capacity of 4000tpd (12 lacs tons per year) as per approved mine plan

(Signature)
Mining Engineer

Department of Mines & Geology, Udaipur Div. UDAIPUR

खनि अभियन्ता

आन एवं विज्ञान विभाग
उदयपुर डिविजन, उदयपुर (राज.)

राजस्थान सरकार

कार्यालय खनि अभियन्ता, खान एवं भू विज्ञान विभाग, उदयपुर खण्ड, उदयपुर


क्रमांक: खअ/उदय/सीसी-3/एम.एल. 231/08/ 81

दिनांक: 23.12.2009

प्रमाण-पत्र

प्रमाणित किया जाता है कि सर्वश्री हिन्दुस्तान जिंक लिमिटेड, जावर के पक्ष में स्वीकृत खनन पट्टा वास्ते खनिज लेड, जिंक, सिल्वर खनन पट्टा संख्या 3/89 निकट ग्राम जावर तह. सराड़ा जिला- उदयपुर द्वारा वर्ष 2004-05 से 2008-09 में खनिज अयस्क, खनिज अयस्क का सज्जीकरण, सीसा-जस्ता सान्द्र का उत्पादन उनके द्वारा प्रस्तुत किये गये आंकड़ों के अनुसार निम्न है :-

क.सं.	वर्ष	खनिज अयस्क उत्पादन (मेट्रिक टन)	खनिज अयस्क का सज्जीकरण (Beneficiation) (मेट्रिक टन)	सीसा-जस्ता सान्द्र उत्पादन (मेट्रिक टन)
1	2004-05	938100	951300	87522
2	2005-06	807500	799220	74274
3	2006-07	812000	812600	71873
4	2007-08	901635	900345	81851
5	2008-09	944300	943177	74230


खनि अभियन्ता
उदयपुर खण्ड, उदयपुर

राजस्थान सरकार
कार्यालय खनि अभियन्ता, खान एवं भू विज्ञान विभाग, उदयपुर खण्ड उदयपुर

क्रमांक: खअ/उदय/सीसी-3/एम.एल. 231/12/45 दिनांक: 26.10.2012

प्रमाण-पत्र

प्रमाणित किया जाता है कि मै. हिन्दुस्तान जिंक लिमिटेड खनन पट्टाधारी खनिज लेड, जिंक, सिल्वर खनन पट्टा संख्या 3/89 निकट ग्राम जापर तह. सराडा जिला- उदयपुर द्वारा वर्ष 2009-10 से 2011-12 में खनिज अयस्क, खनिज अयस्क का सञ्जीकरण, सीसा-जस्ता साब्द का उत्पादन उनके द्वारा प्रस्तुत किये गये आंकड़ों के अनुसार निम्नानुसार किया गया है।

व.सं.	वर्ष	खनिज अयस्क उत्पादन (मेट्रिक टन)	खनिज अयस्क का सञ्जीकरण (Beneficiation) (मेट्रिक टन)	सीसा-जस्ता साब्द उत्पादन (मेट्रिक टन)
1	2009-10	1020250	1013580	73048
2	2010-11	240550	233872	18079
3	2011-12	204150	230722	17447

29
खाने अभियन्ता
खनि अभियन्ता
खान एवं भू-विज्ञान विभाग
उदयपुर खण्ड, उदयपुर (राज.)

राजस्थान सरकार
कार्यालय खनि अभियन्ता, खान एवं भू विज्ञान विभाग, उदयपुर खण्ड उदयपुर

क्रमांक: खअ/उदय/सांख्य/एम.एल. 3/89/ 661

दिनांक: 19.01.2015

प्रमाण-पत्र

प्रमाणित किया जाता है कि मैं हिन्दुस्तान जिंक लिमिटेड खनन पट्टाधारी खनिज लेड, जिंक, सिल्वर खनन पट्टा संख्या 3/89 निकट ग्राम जावर तह. सराड़ा जिला- उदयपुर द्वारा वर्ष 2013-14 में खनिज अयस्क, खनिज अयस्क का सज्जीकरण, सीसा-जस्ता सान्द्र का उत्पादन उनके द्वारा प्रस्तुत किये गये आंकड़ों के अनुसार निम्नानुसार किया गया है।

क्र.सं.	वर्ष	खनिज अयस्क उत्पादन (मेट्रिक टन)	खनिज अयस्क का सज्जीकरण (Beneficiation) (मेट्रिक टन)	सीसा-जस्ता सान्द्र उत्पादन (मेट्रिक टन)
1	2013-14	1003600	996889	69006

खनि अभियन्ता
उदयपुर

राजस्थान सरकार
कार्यालय खनि अभियन्ता, खान एवं भू विज्ञान विभाग, उदयपुर खण्ड उदयपुर

क्रमांक: खअ/उदय/सांख्य/एम.एल. 3/89/ 24 दिनांक: 18.05.2015

प्रमाण-पत्र

प्रमाणित किया जाता है कि मै. हिन्दुस्तान जिंक लिमिटेड खनन पट्टाधारी खनिज लेड, जिंक, सिल्वर खनन पट्टा संख्या 3/89 निकट ग्राम जावर तह. सराड़ा जिला- उदयपुर द्वारा वर्ष 2014-15 में खनिज अयस्क, खनिज अयस्क का सज्जीकरण, सीसा-जस्ता सान्द्र का उत्पादन उनके द्वारा प्रस्तुत किये गये आंकड़ों के अनुसार निम्नानुसार किया गया है।

क. सं.	वर्ष	खनिज अयस्क उत्पादन (मेट्रिक टन)	खनिज अयस्क का सज्जीकरण (Beneficiation) (मेट्रिक टन)	सीसा-जस्ता सान्द्र उत्पादन (मेट्रिक टन)
1	2014-15	10,56,000	10,77,142	74,186

खनि अभियन्ता
उदयपुर

राजस्थान सरकार
कार्यालय खनि अभियन्ता, खान एवं भू विज्ञान विभाग, उदयपुर खण्ड उदयपुर
क्रमांक: खअ/उदय/सांख्य/एम.एल. 3/89/ 63 दिनांक: 15.07.2016

प्रमाण-पत्र

प्रमाणित किया जाता है कि मै. हिन्दुस्तान जिंक लिमिटेड खनन पट्टाधारी खनिज लेड, जिंक, सिल्वर खनन पट्टा संख्या 3/89 निकट ग्राम जावर तह. सराड़ा जिला- उदयपुर द्वारा वर्ष 2015-16 में खनिज अयस्क, खनिज अयस्क का सञ्जीकरण, सीसा जस्ता सान्द्र का उत्पादन, कार्यालय में प्रस्तुत माहवार सांख्यिकी आंकड़ों के अनुसार निम्न है :-

क्र. सं.	वर्ष	खनिज अयस्क उत्पादन (मेट्रिक टन)	खनिज अयस्क का सञ्जीकरण (Beneficiation) (मेट्रिक टन)	सीसा जस्ता सान्द्र उत्पादन (मेट्रिक टन)
1	2015-16	13,49,850	13,27,514	1,02,988

खनि अभियन्ता
उदयपुर

राजस्थान सरकार

कार्यालय खनि अभियन्ता, खान एवं भू विज्ञान विभाग, उदयपुर (राज.)

क्रमांक: खअ/उदय/सांख्य/एमएल 3/1989/07

दिनांक: 30/07/2020

संशोधित प्रमाण पत्र

प्रमाणित किया जाता है कि मैसर्स हिन्दुस्तान जिंक लिमिटेड, उदयपुर के पक्ष में खनन पट्टा संख्या 3/1989 वास्ते खनिज लेड, जिंक एवं सिल्वर निकट ग्राम जावर तहसील सराडा जिला उदयपुर क्षेत्रफल 3620 हेक्टेयर अवधि दिनांक 01.04.1950 से 31.03.2030 तक वैध है।

उक्त खनन पट्टे का वर्ष 2016-17 से 2019-20 में खनिज अयस्क, खनिज अयस्क का (Beneficiation) का उत्पादन उनके द्वारा प्रस्तुत दिनांक 30.07.2020 के अनुसार पूर्व में जारी प्रमाण पत्र क्रमांक 03 दिनांक 15.07.2020 में आंशिक संशोधन करते हुये प्राप्त आंकड़ों के अनुसार संशोधित प्रमाण पत्र निम्नानुसार जारी किया जाता है:-

क्र.स.	वर्ष	खनिज अयस्कत उत्पादन (मे.टन)	खनिज अयस्क का (Beneficiation) (मे.टन)
1	2016-17	1770000.000	1457179.000
2	2017-18	2176111.000	2016815.000
3	2018-19	2832003.000	2895431.000
4	2019-20	3283832.000	3274146.000


खनि अभियन्ता
उदयपुर

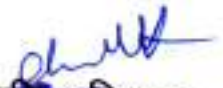
राजस्थान सरकार
कार्यालय खनि अभियन्ता, खान एवं भू विज्ञान विभाग, उदयपुर (राज.)
क्रमांक: खअ/उदय/सांख्य/एमएल 3/1989/04 दिनांक: 14/06/2021

प्रमाण पत्र

प्रमाणित किया जाता है कि मैसर्स हिन्दुस्तान जिंक लिमिटेड, उदयपुर के पक्ष में खनन पट्टा सख्या 3/1989 वास्ते खनिज लेड, जिंक एवं सिल्वर निकट ग्राम जावर तहसील सराडा जिला उदयपुर क्षेत्रफल 3620 हेक्टेयर अवधि दिनांक 01.04.1950 से 31.03.2030 तक वैध है।

उक्त खनन पट्टे का वर्ष 2021-21 में खनिज अयस्क, खनिज अयस्क का (Beneficiation) का उत्पादन उनके द्वारा प्रस्तुत आंकडो के अनुसार प्रमाण पत्र निम्नानुसार जारी किया जाता है:-

क्र.स.	वर्ष	खनिज अयस्कत उत्पादन (मे.टन)	खनिज अयस्क का (Beneficiation) (मे.टन)
1	2020-21	3951281.000	3945313.000


खनि अभियन्ता,
उदयपुर विभाग,
उदयपुर, राजस्थान

Annexure XII Surface water agreement

ANNEXURE-X WATER DRAWL LETTER

AGREEMENT FOR WATER DRAWL FROM THE HINDUSTAN DAM FOR THE STATE GOVT., DELHI.

This agreement made this 17th day of April 1954 between the Government of State of Rajasthan (hereinafter referred to as Government) which expression shall unless excluded by or repugnant to the context include his heirs, successors or assigns) of the First Part and the Hindustan Dam Ltd., a company registered under Indian Companies Act, 1913 having its registered office at 4, New Fatehpura in the City of Jaipur, hereinafter referred to as Hindustan Dam (which expression shall unless so required include its successors, liquidators and assigns) of the other Part.

Whereas the parties have agreed to the handing over of the Dam to the Hindustan Dam Ltd., this agreement witnesses the transfer of the Dam on the terms and conditions mentioned below:

1. The State Government will charge monthly cost of water stored in the dam during four Rajasthan State Government from Hindustan Dam @ Rs. 1/- per foot, as per Dam in built at their cost. The quantity of water will be calculated from the present capacity curve of the dam between highest gauge attained after rains and lowest gauge reached before next rains ignoring seepage in any other season which is zero and so negligible.
2. Hindustan Dam will not raise the dam beyond R.L. 1007.00 as per approved scheme, without sanction of the State Government and before completing all formalities of acquiring lands in submergence.
3. In view of the stability of the dam influencing the safety of life and public property downstream, Hindustan Dam Ltd. shall maintain the dam properly. For this purpose the Chief Engineer, Irrigation, Government of Rajasthan or his nominee shall inspect the Dam every year on 1st day of April and

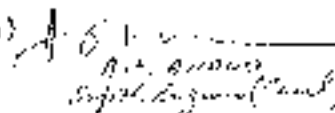
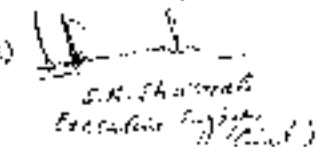
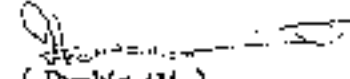
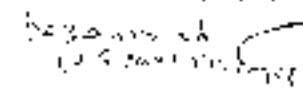
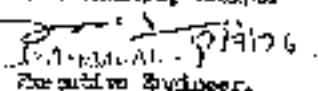
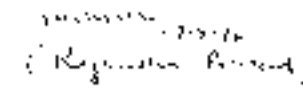
Done at Jaipur

AX-1

ANNEXURE-X
WATER DRAWL LETTER

Let any of November and lay down instructions for safety and maintenance of the dam or are required to be supplied with by the Madhuchan Sino Ltd. In the event of such instructions not being complied reasonable for compliance by Madhuchan Sino Ltd, the matter will be referred to the Central Water Commission, New Delhi, whose decision shall be final and binding.

In witness whereof the parties have signed this deed in the presence of witnesses hereon subscribed:

Witness 1)	 A. S. Kumar Supdt. Engineer (Civil)	for and on behalf of Madhuchan Sino Limited (A Government of India Enterprise)
2)	 S. K. Sharma Executive Engineer (Civil)	 (Madhuchan Sino) Chief Engineer (Civil) Signed on behalf of Madhuchan Sino Limited, Madhuchan
Witness 1)	 P. S. Sharma Executive Engineer	 P. S. Sharma Executive Engineer, Irrigation Department, For and on behalf of Government of Rajasthan.
2)	 P. S. Sharma (Rajasthan Government)	

**ANNEXURE-X
WATER DRAWL LETTER**

P.O. 25/4/07. from -
W.R.D. office
25/4/07.

संस्कृत संस्कार
जल संसाधन विभाग

क्रमांक- राजस्व/ 2006/ 5/ 42

दिनांक- 21/4/07

जनरल मैनेजर,
हिन्दुस्तान पिंक लिमिटेड,
जावर हाईस, उदयपुर ।

विषय- Addendum to the Existing Agreement for TIDM DAM signed
between HZL & GoR in 1978


सन्दर्भ- आयकें पत्रिका HZL / ZM/07-08/23 (दिनांक 08 अग्रे 2007)

गर्होदय,

उपरोक्त विषयान्वित विवेकन है कि टीडी डैम से हिन्दुस्तान पिंक लिमिटेड द्वारा पानी लेने के लिये पूर्व वर्ष 1978 में किया गये अनुबंध की शर्तों में संशोधन करने हेतु अधिसूचना अधिनियम एवं प्रत्ये (कर) द्वारा मुख्य अधिनियम, जल संसाधन विभाग, उदयपुर के पत्र क्रमांक मुम्बई/ टीडी/ (जल) 1982 दि. 20-11-2006 से प्राप्त त्वीकृति अनुसार नूतन अनुबंध में Addendum की कार्यवाही सम्पादित कर Addendum की एक छाया प्रति हन पत्र के साथ संलग्न कर वाले अर्द्ध आवरणक आवेगवाही प्रेषित है ।

संलग्न- उपरोक्तानुसार एक छाया प्रति ।

भक्तेश,


अधिसूचना अधिनियम,
जल संसाधन विभाग, उदयपुर ।
दिनांक-

क्रमांक- राजस्व/ 2006/

प्रतिस्तिपि विन्, जो सूचनार्थ एवं आवरणक कार्यवाही हेतु प्रेषित है-


1- श्रीमान् अधिसूचना अधिनियम, एवं प्रायं सड़ा (कार्ट) द्वारा मुख्य अधिनियम, जल संसाधन विभाग, उदयपुर को एक पत्र क्रमांक मुम्बई/ टीडी/ (जल) 1982 दि. 20-11-2006 को उत्तरिक्त मुख्य अधिनियम, जल संसाधन विभाग, उदयपुर को संशोधित है के सन्दर्भ में ।

2- श्रीमान् अधिसूचना अधिनियम, जल संसाधन विभाग, उदयपुर को इस कार्यालय के पत्र क्र. 267779 दि. 29-3-2007 के क्रम में ।

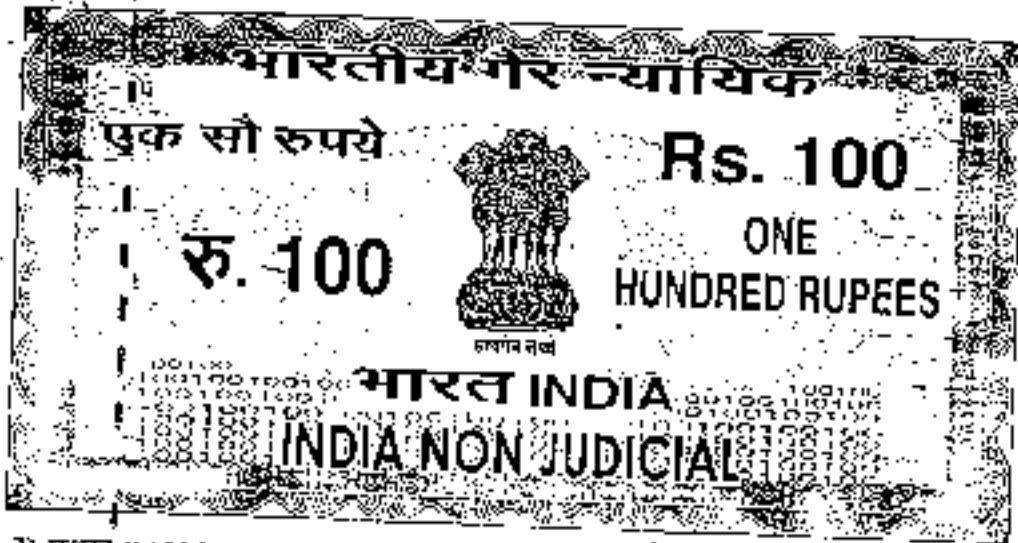
3- श्रीमान् अधिसूचना अधिनियम, जल संसाधन विभाग, उदयपुर को इस कार्यालय के पत्र क्र. 267779 दि. 29-3-2007 एवं उनके पत्र क्र. राजस्व/ 07/ 2817-10 दि. 30-3-2007 के सन्दर्भ में ।

4- सहायक अधिसूचना, जल संसाधन विभाग, विर्ता को इस कार्यालय के पत्र क्र. 18845-52 दि. 20-12-2006 के क्रम में प्रेषित कर देखा है कि उक्त के क्रम से टीडी डैम से उपयोग में लिये गये जल के शुल्क का बिल नियमानुसार तैयार कर हिन्दुस्तान पिंक लि जो डैम विवरणों का भ्रम करे ।

संलग्न- उपरोक्तानुसार एक छाया प्रति ।


अधिसूचना अधिनियम,
जल संसाधन विभाग, उदयपुर ।

**ANNEXURE-X
WATER DRAWL LETTER**



राजस्थान RAJASTHAN

कोषाधिकारी
* राजस्थान *

446638

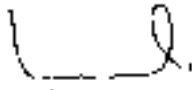
**ADDENDUM TO THE AGREEMENT ON TIDELIAM WITH
HINDUSTAN ZINC LIMITED (UDAIPUR) SIGNED & EXECUTED
ON 17TH SEPTEMBER, 1976 IN BETWEEN (H/Z/L/D)**

The Governor of the State of Rajasthan (hereinafter referred to as Government, which expression shall unless excluded by or repugnant to the context include his heirs, successors or assigns) of the first party.

AND

Hindustan Zinc Limited, a company registered under the Indian Companies Act, 1956 - having its registered office at Yashad Bhawan, Udaipur (hereinafter referred to as Hindustan Zinc which expression where context so requires shall include its successors, liquidators and assigns) of the other party.

The terms & conditions at Sl. No.1 of the agreement as signed & agreed on 17/9/1976 as amended shall remain effective in full force with effect from 20/7/2006 and the amended Para Sl. No. 1 will now read as under:


(K. C. Jain)
General Manager
Hindustan Zinc Ltd.,
415311/11/10, Udaipur (Raj.)
Bharat Sanstha, Udaipur (Raj.)

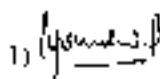
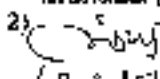
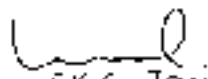
**ANNEXURE-X
WATER DRAWL LETTER**

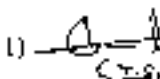
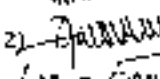
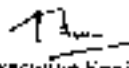
- 2 -

1. The State Government will charge nominal cost of water stored in the dam coming from Rajasthan State Territory from Hindustan Zinc @ Rs 2000/- per Melt or as prevailing from time to time hereafter as the dam is built at their cost. The quantity of water will be calculated from the present capacity curve of the dam between highest gauge attained after rains and lowest gauge reached before next rains ignoring inflow in any other season which is rare and so negligible.

Other terms and conditions shall remain as here to before.

In witness whereof the parties have executed and signed this deed at Udaipur this the 29th day of April 2001, in the presence of witnesses named hereunder:

<p>Witness 1)  (K. PANJWALA) COMPNY SECRETARY HINDUSTAN ZINC LIMITED Taraksh Nagar Udaipur</p> <p>2)  (B.S. Kotharia)</p>	<p> (K.C. Jain) For and on behalf of Hindustan Zinc Limited Yashad Bhawan, Udaipur (Raj.) General Manager (General Mgt. Div.) Hindustan Zinc Ltd. Plot No. 1, Udaipur (Raj.) Phone No. (0294) 251111</p>
---	---

<p>Witness 1)  (S. K. Singh) सहायक अभियन्ता नदी संयोजन विभाग-गोदा, उदरपुर</p> <p>2)  (M. C. Gangal) सहायक अभियन्ता एवं प्रमुख वाले गंगा नदी विभाग उदरपुर</p>	<p> Executive Engineer Water Resources Division, Udaipur (Raj.) For and on behalf of Governor of Rajasthan</p>
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Annexure XIII_Acknowledgement Slip CGWA



Government of India
Ministry of Jal Shakti
Department of Water Resources, River Development and Ganga Rejuvenation
Central Ground Water Authority (CGWA)



Application for Issue of NOC to Abstract Ground Water (NOCAP)

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<p>Location Details</p> <p>Communication Address</p> <p>Existing NOC Details</p> <p>Land Use Details</p> <p>Dewatering Existing Structure</p> <p>Dewatering Additional Structure</p> <p>Utilization of pumped water</p> <p>Monitoring of groundwater regime</p> <p>Groundwater Abstraction Structure- Existing</p> <p>Groundwater Abstraction Structure- Additional</p> <p>Compliance Conditions in the NOC</p> <p>Compliance Conditions in the NOC - Other</p> <p>Other Details</p> <p>Self Declaration</p> <p>Attachment</p> <p>Final Submit</p>	<p>RENEW - MINING USE: SUCCESSFUL SUBMISSION</p> <p style="text-align: right;">Print Application</p> <p>Your Application Submitted Successfully.Your Application Details are :</p> <p>Application Number : 21-4/266/RJ/MIN/2008</p> <p>Details of Existing CGWA/NOC/MIN/REN/1/2013/0011 NOC : (11/12/2013 - 10/12/2016)</p> <p>Applied For Renewal : 2nd</p> <p>Name of Mining : M/S HINDUSTAN ZINC LTD.</p> <p>Submitted Date: 10/06/2021</p> <p>Net Ground Water Requirement: 135.00</p> <p>Please note your application number for future reference.</p> <p>Your application has been submitted to office: Regional Director Central Ground Water Board Western Region 6-A Jhalana Doongri JAIPUR RAJASTHAN PinCode : 302004</p>
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Government of India
Ministry of Jal Shakti
Department of Water Resources, River Development and Ganga Rejuvenation
Central Ground Water Authority (CGWA)



Application for Issue of NOC to Abstract Ground Water (NOCAP)

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<ul style="list-style-type: none"> Location Details Communication Address Existing NOC Details Land Use Details Dewatering Existing Structure Dewatering Additional Structure Utilization of pumped water Monitoring of groundwater regime Groundwater Abstraction Structure- Existing Groundwater Abstraction Structure- Additional Compliance Conditions in the NOC Compliance Conditions in the NOC - Other Other Details Self Declaration Attachment Final Submit 	<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; margin: 0;">RENEW - MINING USE: SUCCESSFUL SUBMISSION</p> <p style="text-align: right; margin: 0;">Print Application</p> <p style="margin: 0; color: green;">Your Application Submitted Successfully.Your Application Details are :</p> <p style="margin: 0;">Application Number : 21-4/345/RJ/MIN/2009</p> <p style="margin: 0;">Details of Existing CGWA/NOC/MIN/REN/1/2013/0014</p> <p style="margin: 0;">NOC : (11/12/2013 - 10/12/2016)</p> <p style="margin: 0;">Applied For Renewal : 2nd</p> <p style="margin: 0;">Name of Mining : M/S HINDUSTAN ZINC LTD.</p> <p style="margin: 0;">Submitted Date: 10/06/2021</p> <p style="margin: 0;">Net Ground Water Requirement: 108.00</p> <p style="margin: 0;">Please note your application number for future reference.</p> <p style="margin: 0;">Your application has been submitted to office:</p> <p style="margin: 0;">Regional Director</p> <p style="margin: 0;">Central Ground Water Board Western Region</p> <p style="margin: 0;">6-A</p> <p style="margin: 0;">Jhalana Doongri</p> <p style="margin: 0;">JAIPUR</p> <p style="margin: 0;">RAJASTHAN</p> <p style="margin: 0;">PinCode : 302004</p> </div>
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Annexure XIV_Authentication by DCF

Office of The Deputy Conservator of Forests Wildlife Udaipur

Sajjangarh, Udaipur Post Box No.161, Phone No.029452800008
Email ID -dcfwludz@gmail.com

F.9(10) Survey/DCF/WL/ Udr/2016-17/ 11715

Date : 29/11/16

TO,

V.Jayaraman
VP & Head - EOHS
Hindustan Zinc Limited
Yashad Bhawan, Udaipur

Sub : Issue of certification regarding Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/ Elephant Reserves (existing as well as proposed), if any within 10 km of the Zawar mine lease.

Ref: Hindustan zinc Limited, Udaipur Letter No. Nil Date:24.11.2016

Dear sir,

With reference to the above mentioned subject certified G.T.Sheet & details of GPS Co-ordinates of two blocks submitted by you is verified by Forest Range Officer Jaisamand based on his factual report by vide letter no. 602 dated 29.11.2016 saying that no National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Tiger/Elephant Reserves & Jaisamand wildlife Sanctuary within 10 km of submitted Zawar mine lease area.

Hence this is certified that Jaisamand Wildlife Sanctuary & other P.A.'s mentioned above are not falling in 10 km of aerial distance of mine lease area.
Encl. : Certified G.T.Sheet

Sincerely

Taj
(Dr.T.Mohanraj)
Deputy Conservator of Forests
Wildlife Udaipur
Date :

F.9(10) Survey/DCF/WL/ Udr/2016-17/

Copy to

- 1 Deputy Conservator of Forests, Udaipur
- 2 Forest Range Officer, Wildlife Jaisamand

-Sd-
(Dr.T.Mohanraj)
Deputy Conservator of Forests
Wildlife Udaipur