



# RAJASTHAN STATE MINES & MINERALS LIMITED

(A Government of Rajasthan Enterprise)

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No. RSMM/CO/Projects/Deri Mines/2015/186

Dated 03.07.2015

## Detailed Notice Inviting Expression Of Interest

Notice Inviting Expression of Interest (EOI) for “Consultation on assessment of base metal deposit at Deri Mines using available exploration data and confirm need & extent of additional exploration”.

**Keeness Money for Participating in this Expression of Interest: Rs. 5,000 (Rupees Five Thousand Only) in the form of Demand Draft drawn in favour of RSMML payable at Udaipur.**

### **INTRODUCTION:**

Deri base metal deposit (lead, zinc and copper) is a small multi-metal deposit having higher metal contents. The deposit was first located by Department of Mines and Geology (DMG), Govt. of Rajasthan, during, January 1969 when old working and oxidized cap rocks were identified. It was explored with the help of core drilling by GSI between 1969 and 1972. They drilled 15 bore holes covering about 2493 m drilling for exploration purpose. The deposit was then handed over to Directorate of Miners & Geology, Rajasthan in 1972. The DMG (R) took up further exploration covering 3364 m in 28 bore holes in the year 1972 and underground mine development work by putting shafts and drives etc. The DMG (R) subsequently handed over this mine to RIMDC in 1976 in compliance of GoR directives. After split of RIMDC, a new mining company was formed as RSMDC. RSMDC took up exploration and mine developments for the commercial production of ore. Between 1980 and 1994, RSMDC produced about 25,000 MT ore mostly selling it to Hindustan Zinc Ltd. The lease area of this deposit is 63 hectare and is in Rajasthan state. Forest diversification approval from MOEF, GOI was received in January 2004 which comprises 27.88 hectare of surface forest land and 63 hectare underground mining area. Out of the diverted surface forest area, 21.38 hectare falls in Rajasthan and rest 6.50 hectare in Gujrat state. However, only 3.5 hectare surface forest area falls in the lease.

### **GEOLOGY OF THE DEPOSIT:**

The Deri deposit consists of a suit of arenaceous meta-sediments represented by Quartzite, Quartz-schist and Biotite –sercite –quartz schist. They are intruded by concordant bodies of basic igneous rocks which are the product of regional metamorphism represented by mainly epidiorite, hornblende schist and granulite. The talc schist group of rocks are the chief host rock of base metal mineralisation, occurring as irregular lensoid bodies along the shear zones at the contacts of meta-sediments or within the bodies of the meta-sediments themselves.

The Rocks encountered in the Deri Mine are Quartzite and Quartz-sericite-biotite schist. These are enveloped by granite in North Western portion of the area, where the intrusion resulted in the feldspathisation of the quartzite. These rocks are intruded by amphibolites and hornblende schist, which have been altered to chlorite schist by retrograde metamorphism. The frequent development of talc in chlorite schist has been formed along shear zone planes. The talc- chlorite – biotite schist is generally gossanized. Chlorite schist forms the host rock for mineralisation. Talc is frequently associated with development of sericite. The rocks show gradation to amphibolites, indicating the chlorite schist has been derived from amphibolites by retrograde metamorphism.

### **STRUCTURE:**

The Deri Base Metal deposit forms the part of eastern limb of doubly plunging syncline plunging at moderate angle towards south- southwest of the deposits. The general strike of formations is north-south with dip 20 degree towards either east or west. The dips are generally steep varying from 60 degree to vertical in either direction. The bedding is generally absent or highly obscure, while the foliation is well developed and where both are observed, they are found to be roughly concordant to each other in the deposits.

### **MINERALISATION:**

The DMG has identified six lodes in the area out of which first three lodes from west to east have been investigated in detail. The mineralogy of all three lodes is similar. Geological Survey of India identified six zones out of which five lie in the western part of the deposit within a strike length 370 meters while sixth one lies near the eastern border of the area. The correlation of drill holes data from DMG & GSI in the mine block identified three major lodes. The prominent lodes are I, II & III from Hanging Wall to Footwall side. The shapes of these lodes vary from elongated to thick lensoid type ore bodies of varying dimensions.

### **EXPLORATION & DEVELOPMENT WORK CARRIED OUT SO FAR:-**

<i>Exploration</i>	<i>Work carried out</i>
Geochemical	3060 samples were collected in 29 traverses at 50 m spacing by Geological Survey of India.
Geophysical	Self Potential, Electromagnetic and Induced Polarization Methods by Geological Survey of India. .
Core drilling	<ul style="list-style-type: none"> <li>➤ GSI drilled 15 bore holes covering 2493 m; DMG drilled 28 bore holes covering 3364 m in the year 1972.</li> <li>➤ RSMDC drilled 15 bore holes covering 639 m in the year 1993-94 &amp; 2nos. bore holes in the year 2002 by covering 140 m.</li> </ul>
Underground development	90MRL-472 m, 80MRL-203 m 70MRL-209 m, 60MRL-212 m by DMG & RSMDC up to 1998.

### **TECHNICAL STUDY REPORTS AVAILABLE WITH RSMML CONDUCTED BY VARIOUS AGENCIES TIME TO TIME:**

1. Feasibility report for Deri Base Metal deposit by Hindusthan Zinc Limited in 1980.
2. Feasibility Study for RBG Minerals Industries Limited by Steffen Robertson and Kirsten (U.S.) Inc., United States, in March-2003
3. Assets Valuation of Deri Base Metal Deposits of RSMML By Indian Bureau of Mines, Nagpur in January 2011.
4. Hydrology & hydrogeology of core & buffer zones of Deri Base Metal Mine and impact of mining on water regime by Hydro-Geosurvey Consultant, Jodhpur in 2006.

## **PURPOSE OF THE CONSULTANCY:**

RSMML desires onetime overall assessment of base metal deposit at Deri Mines using available exploration & mine development data and confirm need & extent of additional exploration. Based on this assessment, it is to be studied whether stand alone mining operations in Deri mines or with integrated beneficiation is economically viable. If so, whether retaining all the forest diversion is beneficial or part surrender can be considered.

## **MAJOR SCOPE OF WORK:**

- (1) Study of all the available data and reports.
- (2) Assessment of deposit based on study of available data and reports.
- (3) Confirmation about need of further exploration detailing reasons and cost-benefit analysis.
- (4) Economics of standalone mining or with integrated beneficiation.
- (5) Assessment of minimum requirement of forest land diversion in lease area and cost-benefit analysis of surrendering already approved forest diversion for underground mining in complete lease area.
- (6) Exploring possibilities of having JV or Development Agreement with some company for economic mining operations at Deri Mines.

## **PRE-QUALIFICATION CRITERION FOR CONSULTANT:**

The consultant should have past experience of preparing feasibility report of at least two metal deposits.

## **DETAILS TO BE FURNISHED BY CONSULTANT ALONG WITH THE PROPOSAL:**

- (1) The consultant will provide a detailed scheme for carrying out the work as mentioned under scope of work.
- (2) Consultant shall furnish organisation chart indicating specialists to be engaged for the above work along with their qualifications.
- (3) Consultant shall furnish a detailed bar chart indicating the schedule for all major activities to be performed by them to complete the job as per Scope of Work and time schedule.

## **EXPECTED TIME PERIOD FOR PROPOSED WORK COMPLETION:**

RSMML expects that work should be completed within 4 months from the date of issuing work order.

Competent & interested parties are required to send their proposals, as per the enclosed Pro-forma (**Annexure-I**), so as to reach us latest by **28.07.2015 up to 3.00 PM**. The proposal will be evaluated on technical/ financial competency. The decision of the Company on the suitability of an offer shall be final. The keenness money of non-eligible bidders will be refundable and RFP document will be issued to only eligible bidders for submission of detailed offer with price bids in which participation of the eligible bidder is essential failing which keenness money shall be forfeited.

For further information, please contact:

**Advisor & Head (Proj**

**PRO FORMA FOR PROPOSAL AGAINST EOI**

**1. Consulting Firm/ Individual Details**

- Name of the firm/ consultant
- Address
- Contact Person
- Contact Telephone Number/ Mobile Number
- E-Mail Address

**2. Criteria for Assessing Expression of Interest (EOI)**

Past experience of successfully preparing feasibility report of at least two metal deposits.

**3. Organizational structure, in case of firm.**

**4. Any other relevant information consultant desires to furnish.**

**Closing Date for Submission of Proposal:**

This proposal together with the requisite supporting documents must be submitted on or before **28.07.2015 by 3.00 PM** (IST) to the address specified in the EOI.



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## PROJECTS DIVISION

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Details of the project proposal are provided in the '**Detailed Notice Inviting Expression of Interest**' for which kindly visit our website: "[www.rsmm.com](http://www.rsmm.com)" or contact at the above address. Offers against EOI will be accepted up to **3.00 PM on 28.07.2015** at Corporate Office, Udaipur.

Keep visiting our website for updated information, if any, before the closing date of EOI.

**Advisor & Head (Projects)**