

**INDIAN BUREAU OF MINES  
MINES CONTROL AND CONSERVATION OF MINERAL DIVISION**

**MCDR INSPECTION REPORT**

**Bangalore regional office**

**Mine file No :** KRL/QLN/SILIMANITE/2/BNG

**Mine code :** 55KRL09002

- (i) Name of the Inspecting : **J002** ) **V.D.JALNAPURKAR**  
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine :  
Official with  
Designation
- (iv) Date of Inspection : 23/12/2013
- (v) Prev.inspection date : 12/11/2002

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **CHAVARA & PANMANA**
- (b) Category : B Manual
- (c) Type of Working : Opencast
- (d) Postal address  
State : KERALA  
District : KOLLAM  
Village : CHAVARA & PANAMA  
Taluka : KARUNAGAPPALLI  
Post office :  
Pin Code :  
FAX No. : 0476-680101  
E-mail : kmml@md3.vsnl.net.in  
Phone : 0476-680047,680048
- (e) Police Station :
- (f) First opening date : 09/07/1985
2. Address for correspondence : SANKARAMANGALAM,  
KOVILTHOTTAM, CHAVARA,  
KOLLAM, KERALA-691583.
3. (a) Lease Number : KRL0046  
(b) Lease area : 203.8  
(c) Period of lease : 20  
(d) Date of Expiry : 08/07/2005
4. Mineral worked : SILLIMANITE Main

## 5. Name and Address of the

Lessee : KERALA MINERALS AND METALS LTD  
 SANKARAMANGALAM,  
 KOVILTHOTTAM, CHAVARA,  
 KOLLAM KERALA  
 Phone:0476-680047,680048  
 FAX :0476-680101

Owner : THE KERALA MINERALS AND METALS LTD  
 SANKARAMANGALAM,  
 KOVILTHOTTAM, CHAVARA,  
 KOLLAM KERALA  
 Phone: 0476-680047,680  
 FAX : 0476-680101

## Mining Engineer

Name : S.SREEKUMAR,Full Time  
 Qualification : B.E.MINING  
 Appointment/ :  
 Termination date

## Manager

Name : S.SREEKUMAR  
 Qualification : B.E.MINING  
 Appointment/ :  
 Termination date

6. Date of approval of Mining :  
 Plan/Scheme of Mining**PART - II : TECHNICAL DETAILS/COMMENTS**

## 1. Details about Average employment :

Maximum number of persons employed on any day during the year

Employment category	No.of employment	Av. yearly working days
<b>DIRECT</b>		
Managerial	9	365
Supervisory	14	
Workers	14	
Ministrial	14	
<b>CONTRACT</b>		
Others	12	

**2. Community Development Plan (in and around the mines) : Proposed action and expenditure towards socio-economic development.**

Action during the year	Expenditure in Rs. Lakhs for				Remarks
	previous year		current year		
	Proposed	Incurred	Proposed	Incurred	
<b>General</b>					
Health	0.00	0.00	1.00	5.00	
Housing	0.00	0.00	0.00	0.00	
Water supply	0.00	0.00	0.00	0.00	
<b>Sub total</b>	<b>0.00</b>	<b>0.00</b>	<b>1.00</b>	<b>5.00</b>	
<b>Infrastructure</b>					
<b>Sub total</b>			<b>0.00</b>		
<b>Employment</b>	<b>0.00</b>	<b>35.00</b>	<b>0.00</b>	<b>0.00</b>	
<b>Others</b>	<b>0.00</b>	<b>18.75</b>	<b>0.00</b>	<b>6.00</b>	
<b>Environment management</b>	<b>0.00</b>	<b>1.00</b>	<b>0.00</b>	<b>6.00</b>	
<b>Training</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	
<b>Total</b>	<b>0.00</b>	<b>55.75</b>	<b>0.00</b>	<b>17.00</b>	

**3. Status of compliance of MCDR, 1988, including therewith the rectification of the outstanding violation of rules.**

During earlier study MCDR Rule Nos. 45(5)(a) and 45(5)(b) were pointed out the same have been complied by the party vide letter No.KMML/MS/Mines/IBM/2013/90 dated 12.03.2013.

During the current inspection MCDR Rule No. 13(1) is found to be violated.

**4. A note on the justification in case of suspension of mining operation under rule 13(2) or prohibition of deployment of any person under rule 56 of MCDR, 1988, if recommended.**

Not applicable

**5. Scientific Mining**

Items	Proposal	Actual work done	Remarks
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**A. Exploration (Rule 13)**

a.Type of prospecting : NIL  
and exploration i.e.  
pitting, drilling Not applicable.

b.Total area covered : Not applicable Not applicable.

**B. Working (Rule 13)**

a.Number and size of : Dredging mining Dredge mining in Block The proposed  
each pit (LxWxH) in Block No. 3 - 5E, Green Block between blocks 1D and  
Pontoon and Dredge 5E and 5D and 4 -E 1E have not  
1- ( Block 5E), Green Block been dredged,  
between Block 5(E) the block 4-E  
and 5(D). ( is being  
Block 1D). 1-E. dredged now  
Pontoon and Dredge but the same is  
- 2 - Block 1D, proposed for  
1E, Block 1 F fifth year.(  
Pontoon and  
Dredge - 1).

b.Bench : Not applicable Not applicable.  
size(LxWxH)length can  
be defined as  
regular/irregular

c.Ore to waste ratio : Not applicable Not applicable  
pit wise if possible  
otherwise for mine

d.Total area covered : Not applicable Not applicable  
under excavation/pits

**C. Waste disposal (Rule 13)**

a.Location of dumps : Not applicable Not applicable

e.Yearly generation : Not applicable.  
of waste quantity.

b.Method of dumping : Not applicable Not applicable  
whether  
advancing/retreat

c.Total area covered : Not applicable Not applicable  
under waste dump.

d.No.and size of each : Not applicable Not applicable  
waste dump with No of  
steps/lift/bench

**D. Production**

b.Year wise : 2008-09  
production of last 2008-09 2,81,539.893  
five year. 2009-10 2009-10  
2010-11 2,67,417.196  
2011-12 2010-11  
2012-13 2,70,292.757  
7,85,000 2011-12  
2,73,591.101 2,28,984.994  
2012-2013 Block 2012-13  
785000 2,73,591.101

**D. Reserve**

a. Reserve position as : 9.181 ( fir Block  
per latest MP/MS and 3) UNFC 121  
at the time of  
inspection.

<del>PRODUCE RESERVE FOR THE FOREIGN COUNTRIES</del> / <u>-</u>	
Mineral	Production

**6. Conservation of Mineral - both quantitative and qualitative****Beneficiation (Rule 20 and 26)**

Efforts for improving low grade and sub grade mineral : Not applicable

Efforts for improving percentage of recovery of ore : Not applicable.

**Mineral Rule 15**

Percentage of recovery of ore pitwise w.r.t. ROM and total material : 100%

Number of benches in ore and waste : Not applicable.

**Sub/grd mineral/fines (Rule16)**

Qty of yearly generation and total qty available during inspection with grade : Not applicable

Number and size of each stack : Not applicable

Location of stacking. : Not applicable

Separate stacking from waste : Not applicable

Total area covered for stacking : Not applicable

**Exploration data as on 31/03/**

No. of Boreholes

No. of Pits

No. of Trenches

**OVERBURDEN HANDLED DURING PREVIOUS YEAR****-****Utilisation of Sub Grade Mineral and Mineral Rejects**

Generated

Utilised

Stacked

(In Ton.)

## 7. Environment Management - both quantitative and qualitativ

### A. Land environment

- a. Landscape. : Area is part of beach deposit and the land is flat and mostly covered by patta land owned by private persons
- b. Aesthetic environment : T.S canal in the area. The patta land area was covered by coconut plantation.
- c. Soil and land use pattern : Soil is sandy in nature. People were constructed houses in most of area.
- d. Agriculture : No agriculture except coconut plantation.
- e. Forest(flora and fauna) : Non-forest land and no pronounced fauna in the area.
- f. Vegetation : Coconut and vegetables in residential premises within the lease area. Some plantation by company also undertaken.
- h. Public building, places and monuments (protected, historical), placec of worship and places of tourist : There is no protected and historical monument. Existing churches, temples and schools protected from mining.

### B Water environment.

- a. Surface water : Backwaters observed in canal.
- b. Ground water : Salty and encountered at depth of 2 mts from surface.
- c. Quality of water : Salty and drinking water arranged to residents from Kerala Ground water Authority.

### C. Air environment

- a. Noise : Mining are being carried out without drilling and blasting. Noise due to operation of HEMM is within norms.
- b. Air : The mineral sand is handled in slurry/moisture condition, hence no airborne dust.
- c. Climatic condition : Highly humid and a good seasonal rainfall, Maximum temperature is 38o C and minimum 20o C.

### D. Socio economic environment

- a. Social and demographic profile. : About 25,000 Nos. of people residing in village Chavara. Most of the people in the area dependent on sand mining, fishing etc., for their income. Agriculture provides only a small portion of their income.
- b. Recommending health and safety. : Primary Health faculties are available in Chavara village and better faculty at district H/Q at Kollom. The radioactive mineral monazite is exploited from the mineral deposit ( along with other Heavy Minerals) leaving area free from radiation, by filling the same in a concrete underground pit duly sealed. The design of the pit and its monitoring being done by AERB.
- c. Human settlement : The lease area is densely populated and about 25,000 nos of people residing in village Chavara. As per agreement of resettlement, 4 cents area to each of the land owner is allotted with all facilities like construction of road, supply of drinking water and electricity as reported.

d. Recreational facility. : All Recreational facilities are available at district H/Q Kollom, about 20 km from the mine.

7.1 Comments on the steps taken by the lessee towards maintaining environment and monitoring of environmental parameters to ensure the qualitative improvement in the environment and ecology.

<u>Water Management</u>					
Season	Station type	Station name	Parameter	Value	
				Actual	Excess

<u>Air data for excess parameters</u>					
Season	Station name	Type of area	Parameter	Value	
				Actual	Excess

<u>PLANTATION DURING THE PREVIOUS YEAR</u>			-	Area in Hect.
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<u>TOP SOIL MANAGEMENT</u>	
Quantity as on 31/03/	



8. Scrutiny of annual returns on cost of production, reserve, production, pit mouth value, stock, land use pattern and fixed assets.

Annual Return for 2012-2013 has been scrutinised.

Production of Sillimenite is 1265 MT

Closing Stock of Sillimenite is 198.9 MT

Mineable Reserves 59,97,504 MT (Categories not Known) (Block III)

Fixed Assests have been furnished properly

Plat and machinary including Transport requirement is :18800.6 Crores.

Cost of operation is not mentioned as total 4 No minerals are getting minedout.

**PART - III : PERFORMANCE OF MINE OWNER**  
(In case of lease expiring within 2 years - as per guidelines)

a. Compliance of terms and conditions of lease deed.

Not applicable.

b. Compliance of the provisions of MCDR, 88 and advise given.

Not applicable

c. Conduct with regard to adoption of safety measures and forest wealth, ecology and environment in the mining lease area.

Not applicable

d. Whether the mine owner has carried out exploration and exploitation on the basis on surface mapping, pitting, trenching and core drilling taking in to consideration the mode of occurrences of mineral deposit.

Not applicable.

e. Whether production from mining area is commensurate with the reserves and the long term progress of utilization of mineral.

Not applicable

f. Whether adequate investment has been made by the lessee on the development of mine on mining machinery, operational and administrative building, residential accommodation for the employees.

Not applicable

g. Measures taken by the lessee for protection of environment and ecology.

Not applicable

h. In case leases where the mineralisation tends to exhaust within the present period, the status of closing operation in phases and the special issues including human issues to be addressed at the time of closing of mine.

Not applicable

**PART - IV : PROPOSALS FOR FURTHER ACTION FOR :**

Indian Bureau of Mines (any issue related to CGPB, SGPB, Assistance, Consultancy, Annual Programme and studies, etc.)

NIL

State Government (Illegal mining, mining dispute, infrastructure, Mineral based industry, Mineral policy, etc.)

NIL

The Central Government (Infrastructure, Development, Mineral policy and Legislation, Mineral based industry, etc.)

NIL

Date :

(V.D.JALNAPURKAR)

Indian Bureau of Mines