

**INDIAN BUREAU OF MINES  
MINERALS DEVELOPEMMENT AND REGULATION DIVISION**

**MCDR INSPECTION REPORT**

**Chennai regional office**

**Mine file No :** TN/ALR/LST-5.MDS

**Mine code :** 38TMN38008

- (i) Name of the Inspecting : **N001** ) **N.SUBRAHAMAANYAM**  
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine :  
Official with  
Designation
- (iv) Date of Inspection : 29/12/2015
- (v) Prev.inspection date :

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **ALAANTHURAIKATTALAI**
- (b) **Registration NO.** :
- (c) **Category** : B Manual
- (d) **Type of Working** : Opencast
- (e) **Postal address**  
State : TAMIL NADU  
District : ARIYALUR  
Village : ALAANTHURAIKATTALAI  
Taluka : ARIYALUR  
Post office : VIGRAMANGALAM  
Pin Code :  
FAX No. :  
E-mail :  
Phone : 0431-2670177/2431502
- (f) **Police Station** : ARIYALUR
- (g) **First opening date** : 29/01/2009
- (h) **Weekly day of rest** : SUN
2. **Address for correspondance** : Plot No. 28 Room No. 221,Ganapathy Nagar,  
Thiruvanaikovil,  
Tiruchirappalli.
3. (a) **Lease Number** : TMN1048
- (b) **Lease area** : 4.45
- (c) **Period of lease** : 20
- (d) **Date of Expiry** : 26/11/2028
4. **Mineral worked** : LIMESTONE Main

5. Name and Address of the

Lessee : C R SHANMUGAM  
PLOT NO-28, DOOR NO-221,  
GANAPATHY NAGAR EXTENSION,  
MAMBHAZHASALAI  
TIRUCHIRAPALLI TAMIL NADU  
Phone:  
FAX :

Owner : C.R.SHANMUGAM  
M/S.SRI RAM CHEMICAL  
221,GANAPATHI NAGAR eXTN.  
MAMBAZHASALAI,TRICHY.  
TIRUCHIRAPALLI TAMIL NADU  
Phone:  
FAX :

6. Date of approval of Mining : Mining Scheme rule 12 MCDR1988 04/07/2013  
Plan/Scheme of Mining

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	5Augur bore holes up to 15 m depth from pit level.	Exploration was carried out.	No comments
1b	Exploration over lease area for geological axis 1 or 2	Reassessed the reserves as per UNFC norms.	Sedimentary rock- Reassessed the reserves as per UNFC norms.	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	R. Sethuraman, Geologist.	Total expenditure incurred is Rs.61,125/-	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not applicable.	Entire mining lease area covered.	Nil
1e	Balance reserve as on 01/04/20	Nil	a. 529860 t (111) b. 446458t(222)	Nil
1f	General remarks of inspecting officers on geology, exploration etc	Nil	Nil	Mining operations are carried out as per proposal. Mine is working intermittently

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Advancement of pit will be from N & S direction of present working pit.	Same as proposed.	Mine is not working regularly due to water logging.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate bench has been formed for Topsoil cum Overburden & Limestone	Same as proposed.	Working as per proposal.
2c	Stripping ratio or ore to OB ratio	1:0.34	Same as proposed.	Working as per proposal.

2d	Quantity of topsoil generation in m3	25000 m3	Same as proposed.	Nil
2e	Quantity of overburden generation in m3	25000 m3 of Topsoil cum OB	Same as proposed.	Nil
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Nil	Nil	Mining operation has to be carried out as per proposal. Mine is not working continually due to flexibility of market demands.

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#### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One	one	Nil
3b	Quantity of ROM mineral production proposed	128350t	Average 124467t	Deviation in production is not significant.
3c	Recovery of sailable/usable mineral from ROM production	95% from ROM.	Same as proposed.	The deposite is sedimentary formation of corralling limestone belongs to cretaceous system& rest archean formations. Such type of deposite only 5% mining loss is considered.
3d	Quantity of mineral reject generation	Not applicable	Nil	Since it is sedimentary formation of corralling limestone belongs to cretaceous system& rest archean formations. Entaire ROM is being used.

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3e	Grade of mineral rejects generation and threshold value declared.	NA	Nil	Nil
3f	Quantity of sub grade mineral generation.	No subgrade mineral, only 5% mining loss.	Same as proposed.	Nil
3g	Grade of sub grade mineral generation	Na	Nil	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	With the help of JCB entire ROM would be loaded in to Trucks, transported to needy industries.	Same as proposed.	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	NA	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	No drilling & blasting is adopted. Only JCB digging & Loading.	Same as proposed.	Nil
3k	Provision of mining machineries in mineral benches	Mining is opencast Cat-'A'. OTFM. 3m depth of topsoil is removed by engaging Ex-210 type hydraulic excavator. Rock breaker attachment will be mounted on Ex-210 excavator for use in breaking ore & remove limestone & loaded in to 10T trucks for transportation to needy industries.	Same as proposed.	Nil

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height is 3m and Width is 5m.	Same as proposed.	Nil
3m	Total area covered under excavation/pits	3.70 ha	Same as proposed.	Nil
3n	Ore to OB ratio for the pit/mine during the year.	1:0.78	Same as proposed.	Nil
3o	Total area put in use under different heads at the end of year	4.17 ha	Same as proposed.	
3p	Production of ROM mineral during the last five year period as applicable	2009-10=15300 ts 2010-11=15300 ts 2011-12=15300 ts 2012-13=15300 ts 2013-14=15300 ts	2009-10=33600ts 2010-11=115200ts 2011-12=77200 ts 2012-13=1100900ts 2013-14=110000 ts	More or less same as proposed
3q	General remarks of inspecting officers on method of mining etc.	Nil	Nil	No comments.

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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Topsoil cum Overburden is being removed and dumped separately.	Proposals have been achieved.	Nil
4b	Location of topsoil, OB and mineral reject dumps	All along safety the zone. Same as proposed.	All along safety the zone. Same as proposed.	Nil
4c	Number of dumps within lease area and outside of lease area	Two dumps in lease area. No dump is outside lease area.	Same as proposed.	Nil

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Western side & all along safety zone.	Same as proposed.	Nil
4e	Number of active and alive dumps.	Two dumps are active & alive.	Same as proposed.	Nil
4f	Number of dead dumps.	Nil	Nil	Nil
4g	Number of dumps established.	Nil	Nil	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal for Retaining wall or garland drain all along dumps.	Nil	Nil
4i	Length of Retaining wall or garland drain all along dumps	Nil	Nil	Nil
4j	Number of settling ponds	Nil	nil	Nil
4k	Specific comments of inspecting officer on waste dump management	Nil	Nil	No comments.

#### Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No proposal since it is working mine.	Same as proposed.	Nil
5b	Area under backfilling of mined out area	Nil	Nil	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Topsoil is mixed with boulders, taken away by villagers for building, road purposes.	Same as proposed.	Nil
5d	Total area fully reclaimed and rehabilitated	Nil	Nil	Nil

5e	General remarks of inspecting officers on backfilling and reclamation etc.	Nil	Nil	Mine has reached maximum depth of 10m from surface; about 60% of limestone deposit has already mined out. Reserves were estimated as per UNFC norms. After complete exploitation of limestone, back filling would be started.
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Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Nil	Nil	Nil
6b	Area available for rehabilitation (ha) .	a. Nil b. 0.03 ha c.40 nos. d. 200 plants. e. Nil f. Rs.1000.	a. Nil b. 0.03ha c. 40nos. d. 70 plants. e. Nil f. Rs.1000	Nil
6c	afforestation done (ha).	Nil	Nil	Nil
6d	No. of saplings planted during the year	Nil	Nil	Nil
6e	Cumulative no .of plants	Air quality - 1500; Water quality850; Noise: 900 and Ground vibration; 750.	Nil	nil
6f	Any other method of rehabilitation	Nil	Nil	Nil
6g	Cost incurred on watch and care during the year	Nil	Nil	Nil



6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	Nil	Nil	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Nil	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Nil	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Nil	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Nil	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Nil	Nil	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Nil	Nil	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Nil	Nil	Nil

6p	Compliance of environmental monitoring (core zone and buffer zone)	Air quality - Nil 1500: Water quality 850; Noise: 900 and Ground vibration; 750.	Nil	Nil
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Nil	Nil	No comments.

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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Sedimentary formation in Alanthuraikattalai belongs to cretaceous system & rest over archaean formations. They are composed chiefly CaCo3 with varying amounts of impurities. So the entire deposit can be directly used for cement companies without grading & sorting.	Sedimentary formation in Alanthuraikattalai belongs to cretaceous system & rest over archaean formations. They are composed chiefly CaCo3 with varying amounts of impurities. So the entire deposit can be directly used for cement companies without grading & sorting.	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No grading, sorting.	Same as proposed.	ROM loaded in to trucks send to needy Industries.
7c	Different grade of mineral sorted out at mines.	Only one grade loaded in to 10t Truck for transportation to Cement Industries.	Same as proposed.	Nil

7d	Any beneficiation process at mines	Nil	Nil	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Nil	Nil	Nil

## Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Topsoil is mixed with boulders are removed separately & dumped.	Same as proposed.	Nil
8b	Concurrent use or storage of topsoil	Topsoil is mixed with boulders are removed separately & dumped. Than taken away by villagers for building, road purposes	Same as proposed.	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Topsoil cum overburden is dumped separately.	Same as proposed.	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Topsoil is mixed with boulders are removed separately & dumped. Than taken away by villagers for building, road purposes. No waste rock rejects and fines etc. are found in this mine.	Same as proposed.	Nil

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Nil	Nil	No comments
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	No flora with in the lease area.	All along lease boundary few Neem samplings are noticed.	Nil
8g	Survival rate	80%	Due to water problem 50%	No comments
8h	Water sprinkling on roads to control airborne dust	NA	NA	NA
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Nil	Nil	No comments.

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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly returns and annual returns were submitted.	Examined and found to be in order.	No comments.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Nil	Nil	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Nil	Nil	Nil
9d	Scrutiny of Annual return on afforestation	25 plants per year.	Same as proposed.	Nil

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9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Nil	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Nil	Nil	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Nil	Nil	Nil
9h	Scrutiny of Annual return on fixed assets	Nil	Nil	Nil
9k	Scrutiny of Annual return on mining machineries	Mining machineries are deployed on contract basis.	Same as proposed.	Nil

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**Details of violations observed during current inspection and compliance position of violation pointed out**

Violation observed			Show couse position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on

**Date :**

**(N.SUBRAHAMAANYAM)**

Indian Bureau of Mines