

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

**Review and updation of Mining Plan REPORT**

**Ranchi regional office**

**Mine file No :** BIH/LOH/BX/209/RRO

**Mine code :** 07BHR33009

- (i) Name of the Inspecting : **M008** ) **J. MOHANTA**  
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : Shri M.Nayak, G.M, Shri A.Sahu, Mines Manager & Shri  
Official with  
Designation
- (iv) Date of Inspection : 29/10/2018
- (v) Prev.inspection date :

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **PAKHAR (15.58) 38.50**
- (b) **Registration NO.** : **IBM/961/2011**
- (c) **Category** : **A Other than Fully Mech.**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **JHARKHAND**
- District : **LOHARDAGA**
- Village : **PAKHAR**
- Taluka : **KISKO**
- Post office : **NARI-NAWADIH**
- Pin Code :
- FAX No. : **06526-224118**
- E-mail : **N.A.**
- Phone : **06526-224016, 224112**
- (f) **Police Station** : **KISKO**
- (g) **First opening date** : **26/04/1965**
- (h) **Weekly day of rest** : **TUE**
2. **Address for** : **VILL-PAKHAR**  
**correspondance** **TAL-KISKO**  
**DIST-LOHARDAGA**
3. (a) **Lease Number** : **BHR0271**
- (b) **Lease area** : **109.51**
- (c) **Period of lease** : **20**
- (d) **Date of Expiry** : **25/07/2028**
4. **Mineral worked** : **BAUXITE** **Main**

## 5. Name and Address of the

Lessee : MINERALS & MINERALS LTD.  
 AT/PO-LOHARDAGA DIST-  
 LOHARDAGA JHARKHAND  
 LOHARDAGA JHARKHAND  
 Phone:06526-224016  
 FAX :06526-224118

Owner : I.J.JOSHI  
 MINERALS & MINERALS LTD. PO  
 & DIST-LOHARDAGA LOHARDAGA  
 JHARKHAND  
 Phone:  
 FAX :

Agent : MANOJ KUMAR NAYAK  
 HINDALCO INDUSRTIS LTD,  
 COURT ROAD, LOHARDAGA JHK  
 LOHARDAGA JHARKHAND  
 Phone: 9617779670  
 FAX :

## Mining Engineer

Name : P. K. BHALEKAR, Full Time  
 Qualification : B.E.(MINING)  
 Appointment/ : 15/04/2013  
 Termination date

## Geologist

Name : SRI RAMESH KUMAR, Full Time  
 Qualification : M.SC(GEOLOGY)  
 Appointment/ : 10/01/2014  
 Termination date

## Manager

Name : P. K. BHALEKAR  
 Qualification : B.TECH (MINING)  
 Appointment/ : 15/04/2013  
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	12/02/1992
Plan/Scheme of Mining	:	Renewal under rule 24 MCR1960	27/04/1995
	:	Mining Scheme rule 12 MCDR1988	08/02/2002
	:	Renewal under rule 24 MCR1960	09/12/2005
	:	Mining Scheme rule 12 MCDR1988	12/08/2013
	:	MP modif under MCR 1960	09/05/2016

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	As per the modification in approved mining plan approved vide letter dated 9/5/2016 under rule 22(6) of MCR,1960, there is no proposal of exploration during the plan period from 2015-16 to 2018-19.	No exploration was carried out during the year 2017-18 as there was no proposal in the approved document and no backlog of previous year. The mining operation was discontinued since 9/9/2014 vide letter no. 432/M dated 9/9/2014 from DMO, Lohardaga and re-opened on 30/08/2017.	
1b	Exploration over lease area for geological axis 1 or 2	As per the modification in approved mining plan approved vide letter dated 9/5/2016 under rule 22(6) of MCR,1960, there is no proposal of exploration during the plan period from 2015-16 to 2018-19.	No exploration was carried out during the year 2017-18 as there was no proposal in the approved document. The area is already explored previously and almost exploited. The area has already been explored by drilling 61 nos. of boreholes at 50m x 50m interval with a total meterage of 1159m. During the year 2015-16, total 3 boreholes were drilled in the southern part of the lease area around the dump area. The mine is no-operative from 9/9/2014 to 29/08/2017.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	As per the modification in approved mining plan approved vide letter dated 9/5/2016 under rule 22(6) of MCR,1960, there is no proposal of exploration during the plan period from 2015-16 to 2018-19.	No exploration was carried out during the year 2017-18 as there was no proposal in the approved document. As per the approved document, the previous exploration was carried out by M/s Saturn Mining and Exploration Pvt. Ltd., Ranchi and expenditure incurred around Rs 20,09,700/-.	

1d	Balance area to be explored to bring Geological axis in 1 or 2	As per the modification in approved mining plan approved vide letter dated 9/5/2016 under rule 22(6) of MCR,1960, there is no proposal of exploration during the plan period from 2015-16 to 2018-19.	The entire area has already been explored and almost exploited by the lessee and the balance area to be explored is Nil.
1e	Balance reserve as on 01/04/20	As per the modification in approved mining plan approved for the plan period from 2015-16 to 2018-19 vide letter dated 9/5/2016 under rule 22(6) of MCR,1960, the reserve / resource as on 01/04/2015 was given below: Reserve (111): 40266 MT and Resource (211): 617551 MT.	The mine was not operative from 9/9/2014 to 29/08/2017 & re-opened on 30/08/2017. As per approved document dated 20/12/2018, the reserve / resource position as on 01/09/2018 is given below. Reserve (111): 204145 MT and Resource (221): 735771 MT.
1f	General remarks of inspecting officers on geology, exploration etc	Not applicable.	The bauxite deposit of the area is mostly associated with laterite, occurs as irregular and discontinuous lenses within laterite capping. The area has already been explored previously and almost exploited. The mine was not operative from 9/9/2014 to 29/08/2017 & re-opened on 30/08/2017.

---

## Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	As per the mining plan approved for the period from 2015-16 to 2018-19 vide letter dated 9/5/2016, the quarry no. 2A was prposed to be developed after rehandling the dump 1 alongwith three benches during the year 2017-18.	The mining operation was discontinued since 9/9/2014 vide letter no. 432/M dated 9/9/2014 from DMO, Lohardaga due to renewal of lease and re-opened on 30/08/2017. Hence the lessee could not develop the mine as per the proposal.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in topsoil, OB and bauxite were proposed in the mining plan apprved on 9/5/2016. Bench dimension is proposed to be 6m x 6m in in soil and OB and in bauxite 6m x 6m as well as 3m x 3m according to thickness of bauxite.	Separate benches in topsoil, OB and bauxite were developed within stipulated dimensions.	
2c	Stripping ratio or ore to OB ratio	As per the mining plan approved for the period from 2015-16 to 2018-19 vide letter dated 9/5/2016, the overall stripping ratio is proposed to be 1:0.91. The stripping ratio during the year 2017-18 was 1:1.05	The stripping ratio or Ore to OB ratio during the year 2017-18 was 1:1.48.	

2d	Quantity of topsoil generation in m3	As per the mining plan approved for the period from 2015-16 to 2018-19 vide letter dated 9/5/2016, the topsoil generation during 2017-18 was proposed to be 10532 cum.	22360 cum topsoil was reported to be generated from the mine during the year 2017-18.
2e	Quantity of overburden generation in m3	As per the mining plan approved for the period from 2015-16 to 2018-19 vide letter dated 9/5/2016, the overburden generation during 2017-18 was Nil.	42220 cum of OBl was reported to be generated from the mine during the year 2017-18.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Not applicable.	The mining operation in the mine was discontinued from 9/9/2014 to 29/08/2017 and re-opened on 30/08/2017. Hence the mine could not be developed as per the proposal made in the approved document. The bench dimensions maintained as per the rule.

---

Exploitation:

---

Sl.No.	Item	Propasals	Actual work	Remarks
--------	------	-----------	-------------	---------

---

3a	Number of pit proposed for production	As per the mining plan approved for the period from 2015-16 to 2018-19 vide letter dated 9/5/2016, the quarry no. 2A was proposed to be developed after re-handling the dump alongwith 3 number of benches during the year 2017-18.	The mining operation was discontinued from 9/9/2014 to 29/08/2017 and reopened on 30/08/2017. Hence the lessee could not develop the mine as per the proposal.
3b	Quantity of ROM mineral production proposed	As per the mining plan approved for the period from 2015-16 to 2018-19 vide letter dated 9/5/2016, the proposed production during the year 2017-18 was 52580 MT.	The production reported during the year 2017-18 was 28560 MT.
3c	Recovery of saleable/usable mineral from ROM production	The proposed recovery of saleable / usable mineral from ROM is 80%.	Around 23% recovery was reported during the year 2017-18.
3d	Quantity of mineral reject generation	No proposal of mineral reject generation during during the year 2017-18.	No mineral reject generation was reported during the year.
3e	Grade of mineral rejects generation and threshold value declared.	No proposal of mineral reject generation during during the year 2017-18.	Not applicable as there was no generation of mineral rejects during the year. The threshold value of bauxite has been kept at 30% Al <sub>2</sub> O <sub>3</sub> (min) and <5% SiO <sub>2</sub> .

3f	Quantity of sub grade mineral generation.	No proposal of sub grade mineral generation during the year 2017-18.	Not applicable as there was no subgrade mineral generation was reported during the year.
3g	Grade of sub grade mineral generation	No proposal of sub grade mineral generation during the year 2016-17.	Not applicable.
3h	Manual / Mechanised method adopted for segregating from ROM	Manual method was proposed for segregating from ROM in the mining plan approved on 9/5/2016.	The blasted material is sized, sorted and loaded manually into the trucks.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No analysis or beneficiation study was proposed for sub grade mineral and rejects in the approved document.	No analysis or beneficiation study was carried out for sub grade mineral and rejects as no sub grade mineral and rejects reported to be generated from the mine.
3j	Provision of drilling and blasting in mineral benches	As per the mining plan approved for the period from 2015-16 to 2018-19 there was provision of drilling and blasting in the harder formations.	In hard formation drilling of short hole of 34 mm to 38 mm dia by jackhammer operated by compressor up to a depth of 1.5m was in practice in the mine. The burden and spacing maintained at 1m x 1.5m. The holes are charged with ANFO using PETN booster. Short firing is done with the help of ordinary detonator and safety fuse.



- 3k Provision of mining machineries in mineral benches
- The following machineries were proposed to be deployed in the mine as per the mining plan approved for the period from 2015-16 to 2018-19; Poclain excavator (crawler mounted): 4, Terex (tyre mounted):1, Dumper: 6, Compressor (250 cum/m): 1, Rock drill (32-38 mm dia): 3, Tractor: 1 and Dozer: 1.
- Excavator-1, Compressor - 1, Jackhammer -1 and Dumper (20T) -3 were deployed on the day of inspection.
- 3l Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM
- As per the mining plan approved for the period from 2015-16 to 2018-19, the bench height in soil and in overburden will be 6m x 6m and in bauxite the bench will be formed 6m x 6m as well as 3m x 3m according to the thickness of bauxite.
- The height of benches in OB & mineral maintained within stipulated dimension and suitable for the method of mining proposed in mining plan.
- 3m Total area covered under excavation/pits
- Total area proposed to be covered under excavation was 7.07 ha (5.35 ha reclaimed area & 5.14 ha rehabilitated area) during the plan period 2015-16 to 2018-19.
- As on date of inspection about 6.25 ha was covered under excavation.

3n	Ore to OB ratio for the pit/mine during the year.	As per the mining plan approved for the period from 2015-16 to 2018-19, the proposed ore to OB ratio was 1:0.20 during the year 2017-18.	The stripping ratio or Ore to OB ratio during the year 2017-18 was 1:1.48.
3o	Total area put in use under different heads at the end of year	As per the mining plan approved for the period from 2015-16 to 2018-19, total area put to be used was as under: For quarries: 7.07 ha (5.35 ha reclaimed area & 5.14 ha rehabilitated area), Dump: nil, Road: 0.14 ha, Green belt:0.29 ha,. Total area put to use: 7.5 ha.	Total area put to use was as under: For quarries including 1.2 ha reclaimed area - 5.78ha, Dump- 1.08 ha, Road- 0.14 ha, Green belt-0.29 ha,. Total area put to use- 7.29 ha.
3p	Production of ROM mineral during the last five year period as applicable	As per mining plan approved for the period from 2015-16 to 2018-19, proposed production of ROM mineral is given below: 2015-16: 5785 cum, 2016-17: 28679 cum, 2017-18: 28576 cum, 2018-19: 19509 cum.	The mining operation was discontinued from 9/9/2014 to 29/8/2017. The quantity of ROM mineral production during the last five years is given below: 2013-14: 57065 MT, 2014-15: 31175 MT, 2015-16: Nil, 2016-17: Nil and 2017-18: 28560 MT.
3q	General remarks of inspecting officers on method of mining etc.	Not applicable.	A-OTFM method of mining was adopted in the mine. The height of benches in OB & mineral maintained within stipulated dimension in the mine.

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	There was no proposal for dumping of topsoil, OB and mineral rejects. Simultaneous backfilling and spreading of topsoil was proposed during the plan period from 2015-16 to 2018-19.	One old OB/waste dumps exists in the lease area. No mineral reject dump exists within the lease. Simultaneous backfilling and spreading of topsoil was in progress.	
4b	Location of topsoil, OB and mineral reject dumps	There was no proposal for dumping of topsoil, OB and mineral rejects.	One old OB/waste dumps exists in the southern portion of the lease area. No mineral reject dump exists within the lease.	
4c	Number of dumps within lease area and outside of lease area	There was no proposal of waste dumping within or outside the lease area during the plan period from 2015-16 to 2018-19.	One old OB/waste dumps exists in the southern portion of the lease area. No dump exists outside the lease area.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	There was no proposal of waste dumping within or outside the lease area during the plan period from 2015-16 to 2018-19.	The existing OB/waste dump is within ultimate pit limit.	
4e	Number of active and alive dumps.	There was no proposal of active dump in the the approved plan period from 2015-16 to 2018-19.	No active dump present in the lease area.	
4f	Number of dead dumps.	There wsa no proposal of dead dump in the the approved document.	Only one old OB/waste dumps exists in the southern portion of the lease area.	

4g	Number of dumps established.	There was no proposal of establishment of dump as per the approved document.	The existing dumps are proposed to be rehandled completely within the plan period for backfilling the exhausted quarry.
4h	Whether Retaining wall or garland drain all along dumps are there.	There was no proposal of construction of retaining wall or garland drain as per the approved document.	No such retaining wall or garland drain was constructed along the dump.
4i	Length of Retaining wall or garland drain all along dumps	There was no proposal of construction of retaining wall or garland drain as per the approved document.	Not applicable.
4j	Number of settling ponds	There was no proposal of construction of settling pond as per the approved document.	No such settling pond created within the lease area.
4k	Specific comments of inspecting officer on waste dump management	Not applicable.	There was no proposal for dumping of topsoil, OB and mineral rejects. One old OB/waste dump exists in the lease area. The existing dump is proposed to be rehandled completely within the plan period for backfilling the exhausted quarry. Simultaneous backfilling and spreading of topsoil is to be done in the mine.

---

Solid Waste Management - Backfilling:

---

Sl.No.	Item	Proposals	Actual work	Remarks
--------	------	-----------	-------------	---------

---

- 5a Status of part or full extraction of mineral from mined out area before starting backfilling. As per the mining plan approved for the period from 2015-16 to 2018-19 vide letter dated 9/5/2016, there was proposal for full extraction of mineral before starting backfilling. The OB/waste to be generated during mining would be concurrently used for backfilling sreading topsoil over it. Simultaneous backfilling and spreading of topsoil over it was in practice. As on date of inspection about 0.56 ha area was backfilled.
- 5b Area under backfilling of mined out area As per the mining plan approved for the period from 2015-16 to 2018-19 vide letter dated 9/5/2016, there was proposal for backfilling of about 5.35ha mined out area during the plan period. As on date of inspection about 0.56 ha area was backfilled.

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	As per the mining plan approved for the period from 2015-16 to 2018-19 vide letter dated 9/5/2016, there was proposal for use of 34297 cum of topsoil for spreading over backfilled area during the plan period.	As on date of inspection about 0.56 ha area was backfilled.
5d	Total area fully reclaimed and rehabilitated	As per the mining plan approved for the period from 2015-16 to 2018-19 vide letter dated 9/5/2016, there was proposal for backfilling / reclamation of about 5.35ha area out of 7.07ha excavated area. There was proposal for rehabilitation of 5.14 ha area over backfilled area.	As on date of inspection about 0.56 ha area was backfilled.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Not applicable.	The lessee could not achieve the backfilling and reclamation proposal as the mining operation in the mine was discontinued from 9/9/2014 to 29/08/2017. As on date of inspection about 0.56 ha area was backfilled.

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	No such proposal in the approved document.	The annual report on PMCP under rule 23E(2) of MCDR,1988 has been submitted.	
6b	Area available for rehabilitation (ha) .	There was proposal for rehabilitaion of 5.14 ha area during the plan period as per the mining plan approved for the period from 2015-16 to 2018-19.	As on date about 0.56 ha area has been backfilled/reclaimed and about 0.29ha area was rehabilitated through plantation over backfilled area. The lessee could not achieve the target due to discontinuance of mining operation from 9/9/2014 to 29/08/2017.	
6c	afforestation done (ha).	As per proposal, 3500 nos. of plants were to be planted covering an area of 1,4ha backfilled area during the year 2017-18.	The lessee could not achieve the target due to discontinuance of mining operation from 9/9/2014 to 29/08/2017 and non availability of reclaimed area for plantation.	
6d	No. of saplings planted during the year	As per proposal, 3500 nos. of plants were to be planted covering an area of 1,4ha backfilled area during the year 2017-18.	Nil. The lessee could not achieve the target due to discontinuance of mining operation from 9/9/2014 to 29/08/2017 and non availability of reclaimed area for plantation.	
6e	Cumulative no .of plants	There was no proposal for cumulative plantation.	On cumulative basis about 916 nos. of plantation were done by the lessee covering an area of about 0.29 ha.	
6f	Any other method of rehabilitation	No proposal available in the approved document.	Only plantation has been reported over the backfilled area for rehabilitation.	
6g	Cost incurred on watch and care during the year	No proposal available in the approved document.	No information available.	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	No proposal available.	As on date of inspection about 0.56ha area has been backfilled/reclaimed.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	As per the mining plan approved for the period from 2015-16 to 2018-19 vide letter dated 9/5/2016, there was proposal for backfilling of about 5.35ha of mined out area.	As on date of inspection about 0.56 ha area was backfilled/reclaimed and about 0.29ha area was rehabilitated through plantation over backfilled area. The lessee could not achieve the target due to non operational status of the mine from 9/9/2014 to 29/08/2017.
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	As per proposal, 3500 nos. of plants were to be planted covering an area of 1.4ha backfilled area during the year 2017-18.	As on date of inspection about 0.56 ha area was backfilled/reclaimed and about 0.29ha area was rehabilitated through plantation over backfilled area. The lessee could not achieve the target due to non operational status of the mine from 9/9/2014 to 29/08/2017.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	There was no such proposal in the approved document.	No water reservoir constructed within lease area.
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	There was no such proposal in the approved document.	Not applicable.
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	There is no waste land within the lease area.	Not applicable.



6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	There was no such proposal in the approved document.	Not applicable.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	There was no such proposal in the approved document.	Not applicable.
6p	Compliance of environmental monitoring (core zone and buffer zone)	There was proposal for environmental monitoring in the approved document.	Environmental monitoring in the mine was carried out regularly by the lessee.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Not applicable.	Efforts were made by the lessee to adhere with the proposals made in the approved document in context to excavation schedule, production target, environmental monitoring proposals etc. The lessee could not achieve the target due to non operational status of the mine from 9/9/2014 to 29/08/2017.

---

#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	No proposal of mineral dispatch. There was proposal for grade wise sorting within lease area.	Dispatch during the year 2017-18 was 30953.64 MT. The ROM produced from the mine is supplied to company's captive plant at Renukut.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Grade wise manual sorting was proposed in the approved document.	Manual sorting and sizing is done in the mine .	
7c	Different grade of mineral sorted out at mines.	Manual sorting and sizing was proposed in the approved document.	Only manual sorting and sizing is done in the mine. Avg. grade of ore dispatched to the plant is Al2O3 41.65%.	

7d	Any beneficiation process at mines .	No proposal in the approved document.	No beneficiation except manual sorting & sizing is carried out at the mine site.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Not applicable.	No beneficiation was carried out at the mine site except manual sorting & sizing. ROM grade obtained is upgraded by blending some better quality bauxite before dispatch. Avg. grade of ore dispatched to the plant is Al <sub>2</sub> O <sub>3</sub> 41.65%.

---

Environment :

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	As per the mining plan approved for the period from 2015-16 to 2018-19 vide letter dated 9/5/2016, separate removal of topsoil and simultaneously spreading over the backfilled area was proposed. The topsoil generation during 2017-18 was proposed to be 10532 cum.	22360cum of topsoil was removed during the year and simultaneously utilised by spreading over the backfilled areas.	

8b	Concurrent use or storage of topsoil	As per the approved document, separate removal of topsoil and simultaneously spreading over the backfilled area was proposed. The topsoil generation during 2017-18 was proposed to be 10532 cum.	22360cum of topsoil was removed during the year and simultaneously utilised by spreading over the backfilled areas
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	There was no proposal for separate dumping of OB, waste rock and mineral rejects. Simultaneous backfilling and spreading of topsoil over it was proposed during the plan period from 2015-16 to 2018-19. There was proposal for re-handling of waste dump & waste material to be backfilled in the exhausted quarry no. 1.	One old OB/waste dumps exists in the lease area. No mineral reject dump exists within the lease. As proposed simultaneous backfilling and spreading of topsoil was done in the mine.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	There was proposal for simultaneous backfilling of OB/waste for restoration of excavated area.	As proposed simultaneous backfilling and spreading of topsoil over it was done in the mine. As on date of inspection about 1.20 ha area was reportedly backfilled.

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	As per the mining plan approved for the period from 2015-16 to 2018-19 vide letter dated 9/5/2016, there was proposal for backfilling of about 5.35ha mined out area during the plan period.	As on date of inspection about 1.20 ha area was reportedly backfilled. Simultaneous backfilling and spreading of topsoil was done in the mine.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	As per proposal, 3500 nos. of plants were to be planted covering an area of 1.40ha backfilled area during the year 2017-18.	The mining operation in the mine was discontinued since 9/9/2014 to 29/08/2017. No plantation has been done during the year 2017-18.
8g	Survival rate	No proposal in the approved document.	Not applicable as no plantation has been done during the year.
8h	Water sprinkling on roads to control airborne dust	Proposal of water sprinkling in the last approved document.	Regular water sprinkling on roads is done.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Not applicable.	As on date of inspection about 1.20 ha area was backfilled and about 0.29ha has been covered under afforestation. Simultaneous backfilling and spreading of topsoil was done in the mine. The aesthetic beauty in and around the mine has not been disturbed due to mining activity.

---

Compliance of Rule 45:

---

Sl.No.	Item	Propasals	Actual work	Remarks
--------	------	-----------	-------------	---------

---

- 9a Status of submission of Monthly and Annual returns
- The Party has submitted the information furnished in Monthly returns and Annual Return within stipulated time for the year 2017-18. 2017-18 covers Part-I of General information about mine and labour employment, Part-II about Employment & wages, Part-IIA about Capital Structure, Part-III consists of Consumption of materials, Part-IV about Consumption of explosives, Part-V consists of General Geology & Mining under various sections, Part-VI about Production, Dispatch & Stock and finally Part-VII consists of Cost of production.
- 9b Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager
- The mine is of 'A-OTFM' category. Full time Mining Engineer and Geologist were required to be appointed as per rule. The name of Mining Engineer and Geologist submitted in the Annual return for the year 2017-18.

- 9c Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. As per Mining Plan approved on 9/5/2016 avalid for the plan period 2015-16 to 2018-19, the total area proposed to be put to use during the plan period was as under :-  
Quarry -7.07 ha (5.35 ha reclaimed area & 5.14 ha rehabilitated area); Road- 0.14 Ha; Waste dump - Nil; Pantation- 0.29 ha; Total area put to be under use- 7.5 ha out of total lease area 15.577 ha. The total area put to use as on date of inspection was as under :-  
Quarry -5.9 ha, Covered under current working- 3.66, 2.44 ha -reclaimed & rehbilitated, Waste disposal-0.50ha;
- 9d Scrutiny of Annual return on afforestation In Part-V, item no. 4.4 of the Annual Return for the year 2017-18, the plantation done within M.L area was given as Nil. No plantation done during the year 2017-18.
- 9e Scrutiny of Annual return on mineral reject generation (Grade and quantity) In Part-V, Sec 4 of the Annual Return 2017-18, the information on mineral reject generation was Nil. No mineral reject generation from the mine was reported during the year.

9f	Scrutiny of Annual return on ROM stock and/or graded ore	In Part VI, item no. 1 & 2(A), of the Annual Return, the ROM stock (opening balance) and closing stock were: Opening stock- <40% Al2O3 Grade: 2570.690 MT; Closing Stock- <40% AL2O3 Grade: 177.05MT.	The figure given for opening stock and closing stock were in conformable with the figure furnished through Monthly Returns.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	The Sale value, ex-mine price and production cost were shown in the Annual Return for the year 2017-18.	Cost of production & Ex-Mine price shown as 997.40. Sale value shown as 308,73,226/- during the year.
9h	Scrutiny of Annual return on fixed assets	The value of Fixed Assets shown in Part-IIA of the A.R for the year 2017-18.	The value of Fixed Assets of the lessee for the year 2017-18 was shown as Rs 75659545/ in Part-IIA of the Annual Return, under Capital structure.
9k	Scrutiny of Annual return on mining machineries	In Part-V, Sec 5/6/8/9 of the Annual Return 2017-18, only air compressor shown under the type of machineries used.	Excavator-1, Compressor - 1, Jackhammer -1 and Dumper (20T) -3 were deployed in thye mine.

---

**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 :**

**(J. MOHANTA)**

Indian Bureau of Mines