

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

**MCDR INSPECTION REPORT**

**Bhubaneshwar regional office**

**Mine file No :** ORI/MN/SNG/MCDR-5/BBS-24.5.2K

**Mine code :** 40ORI13014

- (i) Name of the Inspecting : **U11** ) **DAYANAND UPADHYAY**  
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri Nilamani Patel, Mines Manager  
Official with  
Designation
- (iv) Date of Inspection : 24/12/2019
- (v) Prev.inspection date : 16/04/2018

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **MAHULSUKHA**
- (b) **Registration NO.** : **IBM/5865/2011**
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : SUNDARGARH
- Village : BHUTRA
- Taluka : BONAI
- Post office : BHUTRA
- Pin Code :
- FAX No. : 033-22364602
- E-mail : contact@aryanmining.in
- Phone : 033-22364601, 033-22370935
- (f) Police Station : Barsuan
- (g) First opening date : 03/02/1945
- (h) Weekly day of rest : SUN
2. Address for : MAHULSUKHA MN MINES, M/S AMTC(P) LTD  
correspondance P.O.BHUTUDA, DIST:SUNDERGARH  
ODISHA-770041
3. (a) Lease Number : ORI0169
- (b) Lease area : 399.84
- (c) Period of lease :
- (d) Date of Expiry : 31/03/2020
4. Mineral worked : MANGANESE ORE Main

## 5. Name and Address of the

Lessee : ARYAN MINING & TRADING CO. (P) LTD.  
 Multi Apartment, 83A,  
 Nayapatti Road, Kolkata-  
 700055 KOLKATA WEST BENGAL  
 Phone: 033-22364601  
 FAX : 033-22364602

Owner : Mr. Praveen Saraf  
 Multi Apartment, 83A  
 Nayapatti Road, Kolkata-  
 700055 KOLKATA WEST BENGAL  
 Phone: 033-22364602  
 FAX : 033-22364601

## Mining Engineer

Name : SHRI NILAMANI PATEL, Full Time  
 Qualification : DEGREE IN MINING ENGG  
 Appointment/ : 10/09/2019  
 Termination date

## Geologist

Name : Sri Minaketan Naik, Full Time  
 Qualification : M.Sc. Geology  
 Appointment/ : 19/01/2009  
 Termination date

## Manager

Name : SHRI NILAMANI PATEL  
 Qualification : DEGREE IN MINING ENGG  
 Appointment/ : 10/09/2019  
 Termination date

6. Date of approval of Mining	:	Renewal under rule 22 MCR1960	25/05/2004
Plan/Scheme of Mining		Modif.of approved Mining Plan	15/02/2007
		Mining Scheme rule 12 MCDR1988	11/06/2010
		Mining Scheme rule 12 MCDR1988	26/06/2015
		MP modif under 17(3) MCR 2016	06/09/2018
		FMCP under 23C(1)	04/12/2018

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	17 nos of boreholes and 40 nos. of trial pits proposed to drilled in 2018-19,	In 2018-19, 57 nos of boreholes and 40 nos. of trial pits have been drilled.	Proposed boreholes have been drilled by lessee.
1b	Exploration over lease area for geological axis 1 or 2	G2 level of exploration	The lease area has been explored under G1/G2 level of exploration. Area explored under G1, 18 Ha and under G2, 381.838 Ha	The lease area has been explored under G1/G2 level of exploration. Area explored under G1, 18 Ha and under G2, 381.838 Ha.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not Specified	Exploration Agency employed to drilling M/s Gemcokati Exploration Pvt Ltd and Expenditure Rs 170.99 lakhs.	Exploration Agency employed to drilling M/s Gemcokati Exploration Pvt Ltd and Expenditure Rs 170.99 lakhs.
1d	Balance area to be explored to bring Geological axis in 1 or 2	118.407 ha area under G2 level of exploration	About 118.407 ha area has been drilled under G2 level of exploration.	The lease area has been explored under G1/G2 level of exploration. Area explored under G1, 18 Ha and under G2, 381.838 Ha.

1e	Balance reserve as on 01/04/20	As per the modification of Review of Mining Plan approved dated 06.09.2018, Reserve and Resource as on 01.07.2018 are as follows; Reserve under 111 category: 221360.82 tonnes, 122 category: 477428.76 tonnes. Total Reserve: 698789.58 tonnes. Resources under 211 category: 26192.40 tonnes, 222 category: 61762.38 tonnes. Total Resource: 87954.78 tonnes.	Reserve and resource as 01.04.2019 are as follows. Reserve under 111 category: 194939 tonnes, 122 category: 477429 tonnes. Total Reserve: 672368 tonnes, Resources under 211 category: 26192 tonnes, under 222 category: 61762 tonnes. Total Resources: 87954 tonnes.	Reserve and resource as 01.04.2019 are as follows. Reserve under 111 category: 194939 tonnes, 122 category: 477429 tonnes. Total Reserve: 672368 tonnes, Resources under 211 category: 26192 tonnes, under 222 category: 61762 tonnes. Total Resources: 87954 tonnes.
1f	General remarks of inspecting officers on geology, exploration etc	17 nos of boreholes and 40 nos. of trial pits proposed to drilled in 2018-19,	In 2018-19, 57 nos of boreholes and 40 nos. of trial pits have been drilled. The lease area has been explored under G1/G2 level of exploration. Area explored under G1, 18 Ha and under G2, 381.838 Ha.	The lease area has been explored under G1/G2 level of exploration. Area explored under G1, 18 Ha and under G2, 381.838 Ha.

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Development :

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Sl.No.	Item	Propasals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	Two quarries namely Nandagira Quarry- 1N and Quarry-1	In 2018-19, development carried out in Nandagira Quarry- 1N. Quarry-1 was not operated due to want of forest clearance.	Quarry-1 was not operated due to want of forest clearance.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in ore and OB. No proposal of top soil generation.	Separate benches in ore and OB have been maintained.	No separate benches in top soil. Some benches are mixed with ore and waste.
2c	Stripping ratio or ore to OB ratio	1: 10.15	1: 7.15	Stripping ratio varies due to irregular nature of the deposit.
2d	Quantity of topsoil generation in m3	No proposal of top soil generation.	Nil.	There is no generation of top soil.
2e	Quantity of overburden generation in m3	OB proposed from Nandagira Quarry-1N, 78820.90 cum and from Quarry-1, 45364.40 cum.	In 2018-19, OB generated was 128416.4 cum.	In 2018-19, OB generated was 128416.4 cum.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Proposed development in two quarries namely Nandagira Quarry- 1N and Quarry-1.	In 2018-19, development carried out in Nandagira Quarry- 1N. Quarry-1 was not operated due to want of forest clearance.	In 2018-19, development carried out in Nandagira Quarry- 1N. Quarry-1 was not operated due to want of forest clearance.

### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two quarries	Development is carried out in Nandagira Quarry- 1N. Quarry-1 was not operated due to want of forest clearance.	Development is carried out in Nandagira Quarry- 1N. Quarry-1 was not operated due to want of forest clearance.
3b	Quantity of ROM mineral production proposed	40000T of Mn ore in 2018-19	During 2018-19, ROM Production was 39523.954 tonnes.	During 2018-19, ROM Production was 39523.954 tonnes.

3c	Recovery of sailable/usable mineral from ROM production	In the modification of review of mining plan approved dated 06.09.2018 (for the proposal period 2018-19 to 2019-20), the recovery of saleable mineral for the year 2018-19 proposed was 23949.9 tonnes based on survey dated 30.06.2018. The achieved ROM production till 30.06.2018 as mentioned in the para 3.3.3 of the modified RMP dated 06.09.2018 was 13102.469 tonnes.	Recovery of saleable mineral during the year 2018-19 was 39523.954 tonnes.	Recovery of saleable mineral during the year 2018-19 was 39523.954 tonnes.
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3d	Quantity of mineral reject generation	In modification of review of mining plan approved dated 06.09.2018 (for the proposal period 2018-19 to 2019-20), the quantity of mineral reject generation for 2018-19 proposed was 2947.6 tonnes based on survey dated 30.06.2018. The achieved ROM production till 30.06.2018 as mentioned in the para 3.3.3 of the modified RMP dated 06.09.2018 was 13102.469 tonnes.	Quantity of mineral reject generated during the year 2018-19 was 1276 MT. The mineral reject generated have been blended with high grade ROM.	Quantity of mineral reject generated during the year 2018-19 was 1276 MT. The mineral reject generated have been blended with high grade ROM.
3e	Grade of mineral rejects generation and threshold value declared.	>10% Mn & <20%Mn	Avg grade of mineral reject generated Mn%-18.44. The mineral reject generated have been blended with high grade ROM.	Avg grade of mineral reject generated Mn%-18.44. The mineral reject generated have been blended with high grade ROM.

3f	Quantity of sub grade mineral generation.	In modification of review of mining plan approved dated 06.09.2018 (for the proposal period 2018-19 to 2019-20), the quantity of mineral reject generation for 2018-19 proposed was 2947.6 tonnes based on survey dated 30.06.2018. The achieved ROM production till 30.06.2018 as mentioned in the para 3.3.3 of the modified RMP dated 06.09.2018 was 13102.469 tonnes.	Quantity of mineral reject generated during the year 2018-19 was 1276 MT. The mineral reject generated have been blended with high grade ROM.	Quantity of mineral reject generated during the year 2018-19 was 1276 MT. The mineral reject generated have been blended with high grade ROM.
3g	Grade of sub grade mineral generation	>10% Mn & <20%Mn	Avg grade of mineral reject generated Mn%-18.44. The mineral reject generated have been blended with high grade ROM.	Avg grade of mineral reject generated Mn%-18.44. The mineral reject generated have been blended with high grade ROM.
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual sorting and sizing are practiced.	Manual sorting and sizing are practiced.



3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed	Manual sorting and sizing are practiced.	Manual sorting and sizing are practiced.
3j	Provision of drilling and blasting in mineral benches	Drilling blast hole 85mm dia and blasting with deck charging or bottom charging.	Blast hole 85mm dia with the explosive column blasted under 'V' type blasting pattern initiated by detonator & NONEL and safety fuse.	Blast hole 85mm dia with the explosive column blasted under 'V' type blasting pattern initiated by detonator & NONEL and safety fuse.
3k	Provision of mining machineries in mineral benches	Shovel and dumper combination.	Excavation is practised through shovel and dumper combination at benches. Backhoe (2.5 cum capacity): 1 no; Backhoe (0.9 cum capacity): 2 no; Dumper (30 tonne capacity): 5 nos, front end loader (1.7 cum capacity): 1no etc.	Excavation is practised through shovel and dumper combination at benches.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height proposed is 6m	Bench height is suitable for method of mining proposed in modified review of mining plan.	Bench height is suitable for method of mining proposed in modified review of mining plan.
3m	Total area covered under excavation/pits	27.207 Ha.	Area under excavation at the end of 2018-19 is 27.207 ha.	Area under excavation at the end of 2018-19 is 27.207 ha.
3n	Ore to OB ratio for the pit/mine during the year.	1: 10.15	1: 7.15	Stripping ratio varies due to irregular nature of the deposit.

3o	Total area put in use under different heads at the end of year	Total area put in use under different heads at the end of plan period is 124.469 Ha.	Lease area (surface area) utilisation as at the end of year (in ha) as furnished in annual return for 2018-19. (1). Area covered under current (O/C) workings: 27.207 Ha, (2). Used for waste disposal: 19.894 Ha, (3). Occupied by plant, buildings, residential, welfare buildings & roads: 3.984 Ha, (4). Other purposes (used for road, nala, stack, processing yard etc.): 55.627 Ha, (5) work done under progressive closure plan during the year : 0.042 Ha	Lease area (surface area) utilisation as at the end of year (in ha) as furnished in annual return for 2018-19. (1). Area covered under current (O/C) workings: 27.207 Ha, (2). Used for waste disposal: 19.894 Ha, (3). Occupied by plant, buildings, residential, welfare buildings & roads: 3.984 Ha, (4). Other purposes (used for road, nala, stack, processing yard etc.): 55.627 Ha, (5) work done under progressive closure plan during the year : 0.042 Ha
3p	Production of ROM mineral during the last five year period as applicable	FY 2018-19:40000 MT FY 2017-18:44939 MT FY 2016-17: 44921MT FY 2015-16: 40464MT FY 2014-15: 75036MT	FY 2018-19:39523.954MT FY 2017-18:39524.00MT FY 2016-17: 39455.591MT FY 2015-16: Nil FY 2014-15: 1947.262MT	ROM production is within the proposed limit.
3q	General remarks of inspecting officers on method of mining etc.	Development proposed in two quarries namely Nandagira Quarry- 1N and Quarry-1.	In 2018-19, development carried out in Nandagira Quarry- 1N as per proposal. Quarry-1 was not operated due to want of forest clearance.	Quarry-1 was not operated due to want of forest clearance.

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Solid Waste Management - Dumping:

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Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Waste dumping on dump-4 and backfilling the exhausted part of quarry-3. Top soil dump not proposed.	Waste generated has been dumped in dump-4. Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance. There was no generation of top soil . Mineral rejects generated has been blended with high grade ROM.	Waste generated has been dumped in dump-4. There was no generation of top soil . Mineral rejects generated has been blended with high grade ROM.
4b	Location of topsoil, OB and mineral reject dumps	Waste dumping on dump-4 between N-2411200-2411380 and E-308700-308920 and backfilling the exhausted part of quarry-3. Top soil dump not proposed.	Waste generated has been dumped in dump-4. There was no generation of top soil . Mineral rejects generated has been blended with high grade ROM.	Waste generated has been dumped in dump-4. There was no generation of top soil . Mineral rejects generated has been blended with high grade ROM.
4c	Number of dumps within lease area and outside of lease area	Waste dumping on dump-4 and backfilling the exhausted part of quarry-3.	Waste has been dumped on dump-4. Backfilling the exhausted part of quarry-3 has not been proceeded due to want of forest clearance..	There are 6 nos of dumps within the lease area.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dumps are proposed to be outside the UPL.	Dumps developed are outside the UPL.	Dumps developed are outside the UPL.
4e	Number of active and alive dumps.	One Active Dump, namely Dump-4	One Active Dump, namely Dump-4	One Active Dump, namely Dump-4
4f	Number of dead dumps.	Five numbers of dead dump	Five numbers of dead dump	Five numbers of dead dump
4g	Number of dumps established.	Dead dump 1 & 2.	The dead dumps have been stabilized by plantation.	The five nos. of dead dumps have been stabilized by plantation.

4h	Whether Retaining wall or garland drain all along dumps are there.	500m length of retaining wall proposed.	In 2018-19, around 610m length of retaining wall constructed in Ore Stack and 655m of retaining wall around dump-4.	In 2018-19, around 610m length of retaining wall constructed in Ore Stack and 655m of retaining wall around dump-4.
4i	Length of Retaining wall or garland drain all along dumps	500m length of retaining wall proposed.	In 2018-19, around 610m length of retaining wall constructed in Ore Stack and 655m of retaining wall around dump-4.	In 2018-19, around 610m length of retaining wall constructed in Ore Stack and 655m of retaining wall around dump-4.
4j	Number of settling ponds	In 2018-19, two nos of settling ponds have been proposed to be constructed as per FMCP approved dated 04.12.2018.	One number of settling pond constructed in 2018-19 and another one number of settling tank constructed during the year 2019-20.	One number of settling pond constructed in 2018-19 and another one number of settling tank constructed during the year 2019-20.
4k	Specific comments of inspecting officer on waste dump management	Waste dumping on dump-4 and backfilling the exhausted part of quarry-3.	Waste has been dumped on dump-4. Backfilling the exhausted part of quarry-3 has not been proceeded due to want of forest clearance.	The five nos. of dead dumps have been stabilized by plantation.

#### 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.	Backfilling of the exhausted part of quarry-3.	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.
5b	Area under backfilling of mined out area	In FY 2018-19, 0.44 Ha area have been proposed for backfilling within the exhausted part of quarry-3	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No top soil proposed.	Nil.	Top soil generation is not proposed.
5d	Total area fully reclaimed and rehabilitated	In FY 2018-19, 0.44 Ha area have been proposed for backfilling within the exhausted part of quarry-3	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	In FY 2018-19, 0.44 Ha area have been proposed for backfilling within the exhausted part of quarry-3.	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.

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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).	Annual report on PMCP as per Rule 26 (2) of MCDR, 2017.	Annual report on PMCP for the year 2018-19 have been submitted.	Annual report on PMCP for the year 2018-19 have been submitted.
6b	Area available for rehabilitation (ha) .	In FY 2018-19, 0.44 Ha area have been proposed for backfilling within the exhausted part of quarry-3	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.

6c	afforestation done (ha).	FY 2018-19: (a) For Dump Management: 3.4 Ha and (b) for rehabilitation of waste land within lease area: 0.5 Ha. Total area: 3.9 Ha	FY 2018-19: (a) For Dump Management: 3.58 Ha and (b) for rehabilitation of waste land within lease area: 0.5 Ha. Total area: 4.08 Ha	FY 2018-19: (a) For Dump Management: 3.58 Ha and (b) for rehabilitation of waste land within lease area: 0.5 Ha. Total area: 4.08 Ha
6d	No. of saplings planted during the year	1480 nos of saplings	During the year 2018-19, 5433 nos of saplings have been planted.	During the year 2018-19, 5433 nos of saplings have been planted.
6e	Cumulative no .of plants	Not specified.	Cummulative nos. of saplings planted is 196599 nos.	Cummulative nos. of saplings planted is 196599 nos.
6f	Any other method of rehabilitation	Not Proposed	Only sorting and sizing is practiced.	Only sorting and sizing is practiced.
6g	Cost incurred on watch and care during the year	Not specified.	Cost incurred during watch and care is Rs 875200/-	Cost incurred during watch and care is Rs 875200/-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	In FY 2018-19, 0.44 Ha area have been proposed for backfilling within the exhausted part of quarry-3.	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	In FY 2018-19, 0.44 Ha area have been proposed for backfilling within the exhausted part of quarry-3.	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	In FY 2018-19, 0.44 Ha area have been proposed for backfilling within the exhausted part of quarry-3.	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	In FY 2018-19, 0.44 Ha area have been proposed for backfilling within the exhausted part of quarry-3.	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	In FY 2018-19, 0.44 Ha area have been proposed for backfilling within the exhausted part of quarry-3.	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	0.5 Ha	0.5 Ha, by 820 nos of sapling in safety zone.	Virgin area plantation (safety zone)
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	0.5 Ha	0.5 Ha, by 820 nos of sapling in safety zone.	Virgin area plantation (safety zone)
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	0.5 Ha	0.5 Ha, by 820 nos of sapling in safety zone.	Virgin area plantation (safety zone)
6p	Compliance of environmental monitoring (core zone and buffer zone)	Air, Noise, Surface water and ground water analysis are proposed.	Air, Noise analysis has been done daily and Surface water and ground water analysis has been done monthly.	Air, Noise analysis has been done daily and Surface water and ground water analysis has been done monthly.

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	In FY 2018-19, 0.44 Ha area have been proposed for backfilling within the exhausted part of quarry-3. Afforestation proposed in FY 2018-19: (a) For Dump Management: 3.4 Ha and (b) for rehabilitation of waste land within lease area: 0.5 Ha. Total area: 3.9 Ha. Further, 0.5 Ha area of waste land was proposed for rehabilitation	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance. Afforestation in FY 2018-19: (a) For Dump Management: 3.58 Ha and (b) for rehabilitation of waste land within lease area: 0.5 Ha. Total area: 4.08 Ha.	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance. Afforestation in FY 2018-19: (a) For Dump Management: 3.58 Ha and (b) for rehabilitation of waste land within lease area: 0.5 Ha. Total area: 4.08 Ha.
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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting within the lease area	Grade wise sorting within the lease area	Grade wise sorting within the lease area
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	Manual
7c	Different grade of mineral sorted out at mines.	Grade wise sorting within the lease area	25% to below 35% Mn as furnished in annual return.	25% to below 35% Mn as furnished in annual return
7d	Any beneficiation process at mines	Not Proposed	Manual sorting and sizing is practiced.	Manual sorting and sizing is practiced.



7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Grade wise sorting within the lease area	Grade wise sorting, 25% to below 35% Mn as furnished in annual return.	Manual sorting and sizing is practiced.
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**Environment:**

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not proposed.	There is no generation of top soil.	There is no generation of top soil.
8b	Concurrent use or storage of topsoil	There is no generation of top soil.	There is no generation of top soil.	There is no generation of top soil.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Waste dumping on dump-4 between N-2411200-2411380 and E-308700-308920 and backfilling the exhausted part of quarry-3. Top soil dump not proposed.	Waste generated has been dumped in dump-4. Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance. Mineral rejects generated has been blended with high grade ROM.	Waste generated has been dumped in dump-4. Mineral rejects generated has been blended with high grade ROM.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Waste dumping on dump-4 between N-2411200-2411380 and E-308700-308920 and backfilling the exhausted part of quarry-3. Top soil dump not proposed.	Waste generated has been dumped in dump-4. Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance. Mineral rejects generated has been blended with high grade ROM.	Waste generated has been dumped in dump-4. Mineral rejects generated has been blended with high grade ROM.

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	In FY 2018-19, 0.44 Ha area have been proposed for backfilling within the exhausted part of quarry-3	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.	Backfilling of the exhausted part of quarry-3 has not been carried out due to want of forest clearance.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Plantation proposal during 2018-19: (a). Dump-1: No of Saplings : 300 nos, Area: 1.5 Ha (b). Dump-2: No of Saplings: 100 nos, Area : 0.5 Ha ©.Dump-4: No of Saplings planted: 280 nos, Area: 1.40Ha, (d). Safety Zone: No of Saplings planted: 800 nos, Area: 0.5 Ha. Total number of saplings : 1480 nos.	Plantation done in 2018-19: (a). Dump-1: No of Saplings planted: 540 nos, (Gap filling), Area: 1.5 Ha (b). Dump-2: No of Saplings planted: 130 nos, Area:0.50 Ha ©.Dump-4: No of Saplings planted: 3943 nos, Area: 1.58Ha, (d). Safety Zone: No of Saplings planted: 820 nos, Area: 0.5 Ha. Total number of saplings planted : 5433 nos.	Proposed plantation has been carried out by lessee.
8g	Survival rate	Not specified.	Survival rate : 69.36%	Survival rate : 69.36%
8h	Water sprinkling on roads to control airborne dust	Water sprinkling proposed to be done by Mobile water tanker.	Water sprinkling is being carried out by mobile water tanker.	Water sprinkling is being carried out by mobile water tanker.

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Aesthetic beauty in and around mines proposed to be maintained by plantation.	Aesthetic beauty in and around mines have been maintained. Total 5433 number of saplings planted during the year 2018-19 within the lease area.	Aesthetic beauty in and around mines have been maintained. Total 5433 number of saplings planted during the year 2018-19 within the lease area.
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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 return for 2018-19 have been submitted.	Monthly Returns and Annual return for 2018-19 have been submitted.	Monthly Returns and Annual return for 2018-19 have been submitted.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information on Mining Engineer, Geologist and Manager furnished in annual return.	Mining Engineer, Manager and Geologist appointed in mines.	Mining Engineer, Manager and Geologist appointed in mines.

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Lease area (surface area) utilisation as at the end of year (in ha) as furnished in annual return for 2018-19. (1). Area covered under current (O/C) workings: 27.207 Ha, (2). Used for waste disposal: 19.894 Ha, (3). Occupied by plant, buildings, residential, welfare buildings & roads: 3.984 Ha, (4). Other purposes (used for road, nala, stack, processing yard etc.): 55.627 Ha etc.	Lease area (surface area) utilisation as at the end of year (in ha) as furnished in annual return for 2018-19. (1). Area covered under current (O/C) workings: 27.207 Ha, (2). Used for waste disposal: 19.894 Ha, (3). Occupied by plant, buildings, residential, welfare buildings & roads: 3.984 Ha, (4). Other purposes (used for road, nala, stack, processing yard etc.): 55.627 Ha etc.	Details of land used pattern has been furnished in annual return.
9d	Scrutiny of Annual return on afforestation	In 2018-19, number of saplings planted during the year was 5433 nos.	In 2018-19, number of saplings planted during the year was 5433 nos.	In 2018-19, number of saplings planted during the year was 5433 nos.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral reject generation is Nil	Mineral reject generation is Nil	Mineral reject generation is Nil

9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing stock at mine head (in tonne): Grades (% of Mn Content): (2). Below 25% Mn: 85.037 tonnes, (b) 25% to below 35% Mn: 7693.088 tonnes, (c) 35% to below 46% Mn: 3445.537 tonnes, (d) 46% Mn and above: 106.577 tonnes.	Closing stock at mine head (in tonne): Grades (% of Mn Content): (2). Below 25% Mn: 85.037 tonnes, (b) 25% to below 35% Mn: 7693.088 tonnes, (c) 35% to below 46% Mn: 3445.537 tonnes, (d) 46% Mn and above: 106.577 tonnes.	Closing stock at mine head (in tonne): Grades (% of Mn Content): (2). Below 25% Mn: 85.037 tonnes, (b) 25% to below 35% Mn: 7693.088 tonnes, (c) 35% to below 46% Mn: 3445.537 tonnes, (d) 46% Mn and above: 106.577 tonnes.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-mine price (in Rs per tonne) of processed ore: (25% to below 35% Mn: Rs 8310 per tonne	Ex-mine price (in Rs per tonne) of processed ore: (25% to below 35% Mn: Rs 8310 per tonne	Ex-mine price (in Rs per tonne) of processed ore: (25% to below 35% Mn: Rs 8310 per tonne
9h	Scrutiny of Annual return on fixed assets	Value of fixed assests Rs 16431670	Value of fixed assests Rs 16431670	Value of fixed assests Rs 16431670
9k	Scrutiny of Annual return on mining machineries	Backhoe (2.5 cum capacity): 1 no; Backhoe (0.9 cum capacity): 2 nos, front end loader (1.7 cum capacity): 1no etc.	Backhoe (2.5 cum capacity): 1 no; Backhoe (0.9 cum capacity): 2 nos; Dumper (30 tonne capacity): 5 nos, front end loader (1.7 cum capacity): 1no etc.	Backhoe (2.5 cum capacity): 1 no; Backhoe (0.9 cum capacity): 2 no; Dumper (30 tonne capacity): 5 nos, front end loader (1.7 cum capacity): 1no etc.

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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 :**

(DAYANAND UPADHYAY)

Indian Bureau of Mines