

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/KJR/MCDR-9/BBS

Mine code : 30ORI08003

- (i) Name of the Inspecting : **U11**) **DAYANAND UPADHYAY**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri Promod Kumar Dehury, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 29/02/2020
- (v) Prev.inspection date : 30/10/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **BALDA BLOCK**
- (b) **Registration NO.** : **IBM/5624/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : KEONJHAR
- Village : BALDA
- Taluka : BARBIL
- Post office : BALDA
- Pin Code : 758034
- FAX No. : (0674) 2301898
- E-mail : info@serajuddinmines.com
- Phone : 06767-73452
- (f) Police Station : BAMEBARI
- (g) First opening date : 02/06/1962
- (h) Weekly day of rest : MON
2. Address for : BALDA BLOCK IRON MINE. AT: BALDA
correspondance PO: PALSA, DIST; KEONJHAR
PIN: 758034
3. (a) Lease Number : ORI0096
- (b) Lease area : 335.84
- (c) Period of lease :
- (d) Date of Expiry : 20/12/2017
4. Mineral worked : MANGANESE ORE Associated
IRON ORE Main

5. Name and Address of the

Lessee : SERAJUDDIN & CO.
 Balda Block Iron Mines
 At/Po-Balda, P.S-Bamebari
 Dist-Keonjhar, State-Odisha
 KEONJHAR ORISSA
 Phone:(033) 22315652
 FAX : (0674)2301898

Owner : SERAJ YUSHA, JOINT MANAGING PARTNER
 At-N-4/135, IRC Village,
 Nayapalli. Bhubaneswer
 Odisha KEONJHAR ORISSA
 Phone: 9438887898
 FAX : 0674-2301898

Agent : NIHAR RANJAN NAYAK
 Balda Block Iron Mines
 At/Po-Balda, P.S-Bamebari
 Odisha KEONJHAR ORISSA
 Phone: 9438887838
 FAX : (0674)2301898

Mining Engineer

Name : ANJAN KUMAR SAHOO, Full Time
 Qualification : AMIE, FCC
 Appointment/ : 21/09/2012
 Termination date

Geologist

Name : SAURAV KUMAR SAHOO, Full Time
 Qualification : MSC GEOLOGY
 Appointment/ : 08/10/2014
 Termination date

Manager

Name : P K DEHURY
 Qualification : AMIE, FCC
 Appointment/ : 21/09/2012
 Termination date

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| 6. Date of approval of Mining | : | Mining Scheme rule 12 MCDR1988 | 11/06/2004 |
| Plan/Scheme of Mining | : | Mining Scheme rule 12 MCDR1988 | 04/02/2009 |
| | : | Mining Scheme rule 12 MCDR1988 | 27/04/2012 |
| | : | MP review under 17(1) MCR 2016 | 08/11/2016 |
| | : | MP modif under 17(3) MCR 2016 | 17/07/2017 |
| | : | MS modif under MCR 1960 | 25/09/2018 |
| | : | FMCP under 23C(1) | 31/10/2018 |

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|---|---|--|--|
| 1a | Backlog of previous year | 55 nos. of bore holes in 2018-19 | Total 55 nos. of bore holes have been drilled by lessee in 2018-19 & 2019-20 after obtaining the forest clearance. | There is no backlog. |
| 1b | Exploration over lease area for geological axis 1 or 2 | About 157.362 ha under G2 level. | Lessee has completed the exploration in proposed 157.362 ha under G2 level of exploration. | Lessee has completed the exploration in proposed 157.362 ha under G2 level of exploration. |
| 1c | Exploration Agencies and Expenditure in lakh rupees during the year | Not specified. | Exploration agency involved in drilling was M/s Triveni Exploration Ltd. Cost incurred in drilling was 2.70 lakh. | Exploration agency involved in drilling was M/s Triveni Exploration Ltd. Cost incurred in drilling was 2.70 lakh. |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | About 157.362 ha under G2 level. | Lessee has completed the exploration in proposed 157.362 ha under G2 level of exploration. | Total lease area 335.594 ha has explored under G1/G2 level of exploration. |
| 1e | Balance reserve as on 01/04/20 | Balance reserve as per Modification of review of mining plan approved on 01/07/2018 was: Iron ore-167.214MT under proved (111 & 122) category and 104.384MT was under remaining resources | Balance reserve as on 01/04/2019 as annual return 2018-19 after revising the reserve & resources in GR report, Iron ore-131.606MT under proved (111 & 122) category and 87.391MT was under remaining resources | Balance reserve as on 01/04/2019 as annual return 2018-19 after revising the reserve & resources in GR report, Iron ore-131.606MT under proved (111 & 122) category and 87.391MT was under remaining resources |

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| 1f | General remarks of inspecting officers on geology, exploration etc | 55 nos. of bore holes in 2018-19, area 157.362 ha under G2 level of exploration. | Total 55 nos. of bore holes have been drilled by lessee in 2018-19 & 2019-20 after obtaining the forest clearance. Lessee has completed the exploration in proposed 157.362 ha under G2 level of exploration. | Total lease area 335.594 ha has explored under G1/G2 level of exploration. |
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Development :

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|--|--|--|
| 2a | Location of development w.r.t.lease area | Block-A: between grid 2419200 to 2419610 & 335150-335490, Kalimati pit: between grid 2419596 to 2419343 & 335119-335508, Block-F1: between grid 2419700 to 2420420 & 336350-335980 | Block-A: between grid 2419200 to 2419610 & 335150-335490, Kalimati pit: between grid 2419596 to 2419343 & 335119-335508, Block-F1: between grid 2419700 to 2420420 & 336350-335980 | Development is as per proposal. |
| 2b | Separate benches in topsoil, overburden and minerals (Rule 15) | Separate benches in OB and ore, top soil bench not proposed. | No benches in top soil. Separate benches in OB and ore maintained. | No benches in top soil. Separate benches in OB and ore maintained. |
| 2c | Stripping ratio or ore to OB ratio | Average stripping ratio 1:0.287 | 1:0.067 T/cu.m | Average stripping ratio varies due to irregular nature of ore deposit and less ROM production. |
| 2d | Quantity of topsoil generation in m3 | Not Proposed | Nil. | Top soil not proposed as the development is concentrated in broken up area. |
| 2e | Quantity of overburden generation in m3 | 1068372 cu.m | 629866 cu.m | Less OB generated due to less ROM production. |

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| 2f | General remarks of inspecting officers on development of pit w.r.t. type of deposit etc | The development is proposed in three pits i.e Block-A, Kalimati pit, Block-F1 | The development is carried out in three pits i.e Block-A, Kalimati pit, Block-F1 | Development is carried out as per proposal. |
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Exploitation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|---|--|---|
| 3a | Number of pit proposed for production | The production proposed from three pits i.e Block-A, Kalimati pit, Block-F1 | The ROM production is carried out from three pits i.e Block-A, Kalimati pit, Block-F1. | The ROM production is carried out from three pits i.e Block-A, Kalimati pit, Block-F1. |
| 3b | Quantity of ROM mineral production proposed | 13.49 million tonnes | 9.36 million tonnes in 2018-19. | ROM production is less than the proposal as per market demand. |
| 3c | Recovery of sailable/usable mineral from ROM production | 10.60 million tonnes | 9.36 million tonnes in 2018-19. | Total ROM is saleable as the mineral reject generated during mining is blended with high grade ore. |
| 3d | Quantity of mineral reject generation | 2.88 million tonnes. | The mineral reject generated have been blended with high grade ROM. | The mineral reject generated have been blended with high grade ROM. |
| 3e | Grade of mineral rejects generation and threshold value declared. | 45-55% Fe | The mineral reject generated have been blended with high grade ROM. | The mineral reject generated have been blended with high grade ROM. |
| 3f | Quantity of sub grade mineral generation. | 2.88 million tonnes. | The mineral reject generated have been blended with high grade ROM. | The mineral reject generated have been blended with high grade ROM. |
| 3g | Grade of sub grade mineral generation | 45-55% Fe | The mineral reject generated have been blended with high grade ROM. | The mineral reject generated have been blended with high grade ROM. |

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| 3h | Manual / Mechanised method adopted for segregating from ROM | Mechanised | Mechanised | Mechanised method is practiced. |
| 3i | Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects. | Not proposed. | Only crushing and screening is being carried out at mines site. | Only crushing and screening is being carried out at mines site. |
| 3j | Provision of drilling and blasting in mineral benches | DTH drilling of 102mm dia. Blast hole with site mixed Slurry explosives/SME for blasting. | Drilling is carried out with DTH drilling of 102mm dia. and Site mixed Slurry explosives/SME is being used for blasting initiated by detonator & shock tube initiation system. | Drilling is carried out with DTH drilling of 102mm dia. and Site mixed Slurry explosives/SME is being used for blasting initiated by detonator & shock tube initiation system. |
| 3k | Provision of mining machineries in mineral benches | SHOVEL HYDRAULIC (LOADER & EXCAVATOR) 10/9/6/4.6 cu.m-27, DUMPER 85/35T- 3 58, CRUSHER- 14, WATER SPRINKLER-3, DRILL MACHINE- 4 | SHOVEL (HYDRAULIC) 9/4.5/4.2/3/1 cu.m- 37, DUMPER 100/85/50/31T-35, CRUSHER-14, WATER TANKER -10, ROCK DRILL (NON-ELEC.) 115.000 MM- | Excavator, Loader and Dumper are equipped to winning out the mineral. |
| 3l | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | Bench height- 10m | Bench height is suitably matched with the excavator. | Bench height is suitably matched with the excavator. |
| 3m | Total area covered under excavation/pits | 134.215 ha proposed during approved plan period. | About 131.011 ha area has been covered under excavation pits. | About 131.011 ha area has been covered under excavation pits. |

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| 3n | Ore to OB ratio for the pit/mine during the year. | Average stripping ratio 1:0.287 | 1:0.067 T/cu.m | Average stripping ratio varies due to irregular nature of ore deposit and less ROM production. |
| 3o | Total area put in use under different heads at the end of year | Area proposed under different heads are Pit-134.215 ha, waste dump-8.910 ha, Plant, Mineral storage-15.399 ha, residential & building-0.783ha, roads-12.18ha, Crushing/ Screening Unit -1.383 ha & others -8.763 ha. | Area covered under different heads are Pit-131.011 ha, waste dump-11.110 ha, Plant, residential & building, roads-13.881ha & others -50.011 ha. | Area covered under different heads are Pit-131.011 ha, waste dump-11.110 ha, Plant, residential & building, roads-13.881ha & others -50.011 ha. |
| 3p | Production of ROM mineral during the last five year period as applicable | Year Qty. (In Mt.) 2014-15 12.75 2015-16 15.05 2016-17 15.16 2017-18 15.15 2018-19 13.49 | Year Qty. (In Mt.) 2014-15 6.490 2015-16 10.290 2016-17 10.790 2017-18 9.017 2018-19 9.36 | ROM Production is less due to low market demand. |
| 3q | General remarks of inspecting officers on method of mining etc. | Excavation of ROM has been proposed from three pits i.e Block-A, Kalimati pit, Block-F1 | The ROM production has been carried out from three pits i.e Block-A, Kalimati pit, Block-F1. DTH drilling of 102mm dia. Blast hole with emulsion/ slurry explosive alongwith delay detonator is being practiced for drilling and blasting. | Fully mechanised opencast method of mining is practised. Mineral reject generated have been blended with high grade ROM. |

Solid Waste Management - Dumping:

| Sl.No. | Item | Proposals | Actual work | Remarks |
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| 4a | Separate dumping of topsoil, OB and mineral rejects (Rule 32,33) | No proposal for top soil generation. Separate dumping of OB and Mineral reject | Top soil generation was Nil. Mineral reject generated have been utilized by blended with high grade ROM. Separate dumping of overburden. | Mineral reject generated have been utilized by blending with high grade ROM. |
| 4b | Location of topsoil, OB and mineral reject dumps | New Waste Dump near pillar 49 between grid 334430-334651 to 2420631-2420410 & Dump-3 in northern part of block F1, Top soil dump not proposed. | New Waste Dump near pillar 49 between grid 334430-334651 to 2420631-2420410 & Dump-3 in northern part of block F1. | The 90% of mineral reject generated durin mining has been prosed for blending & rest 10% has been proposed for temorary stacked near pits. However it has been observed that total mineral reject generated durin mining has been blended with high grade ores. |
| 4c | Number of dumps within lease area and outside of lease area | New Waste Dump near pillar 49 between grid 334430-334651 to 2420631-2420410 & Dump-3 in northern part of block F1 | There are four numbers of waste dumps namely New Waste Dump near pillar 49, waste dump-1, waste dump-2 & waste dump-3 within lease area. | There are four numbers of waste dumps namely New Waste Dump near pillar 49, waste dump-1, waste dump-2 & waste dump-3 within lease area. |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | New Waste Dump near pillar 49 between grid 334430-334651 to 2420631-2420410 & Dump-3 in northern part of bl | New Waste Dump near pillar 49, Dump-1 near Kalimati pit, Dump-2 in western part of block-A, Dump-3 near F1 block are located outside the UPL. | There are 06 mineral reject dumps located near workshop, office, pit-1, 4, 6 & quarry-6 which are disposed off time to time as per market requirement. |
| 4e | Number of active and alive dumps. | 02 dumps | 02 dumps | Two active dumps, New Waste Dump near pillar 49 between grid 334430-334651 to 2420631-2420410 & Dump-3 in northern part of block F1 |

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| 4f | Number of dead dumps. | 02 dumps | 02 dead dumps, Dump-1 near Kalimati pit, Dump-2 in western part of block-A have been partially rehabilitated by plantation. | 02 dead dumps, Dump-1 near Kalimati pit, Dump-2 in western part of block-A have been partially rehabilitated by plantation. |
| 4g | Number of dumps established. | 02 dead dumps | 02 dead dumps, Dump-1 near Kalimati pit, Dump-2 in western part of block-A have been partially rehabilitated by plantation. | 02 dead dumps, Dump-1 near Kalimati pit, Dump-2 in western part of block-A have been partially rehabilitated by plantation. |
| 4h | Whether Retaining wall or garland drain all along dumps are there. | Total Retaining wall 920m x 2.0m x 1.5m & Garland drain 550m x 1.5m x 1.0m around proposed dump at block-G for block-A & around the waste dump in block-F1. | Retaining wall 920m x 2.0m x 1.5m & Garland drain 550m x 1.5m x 1.0m around proposed dump at block-G for block-A & around the waste dump in block-F1 have been constructed. | Retaining wall 920m x 2.0m x 1.5m & Garland drain 550m x 1.5m x 1.0m around proposed dump at block-G for block-A & around the waste dump in block-F1 have been constructed. |
| 4i | Length of Retaining wall or garland drain all along dumps | Total Retaining wall 920m x 2.0m x 1.5m & Garland drain 550m x 1.5m x 1.0m around proposed dump at block-G for block-A & around the waste dump in block-F1. | Retaining wall 920m x 2.0m x 1.5m & Garland drain 550m x 1.5m x 1.0m around proposed dump at block-G for block-A & around the waste dump in block-F1 have been constructed. | Retaining wall 920m x 2.0m x 1.5m & Garland drain 550m x 1.5m x 1.0m around proposed dump at block-G for block-A & around the waste dump in block-F1 have been constructed. |
| 4j | Number of settling ponds | One Settling pond | Settling pond constructed as proposed. | Settling pond constructed as proposed. |

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| 4k | Specific comments of inspecting officer on waste dump management | New Waste Dump near pillar 49 between grid 334430-334651 to 2420631-2420410 & Dump-3 in northern part of block F1 | Waste Dump has been dumped as per proposal. Slope of the dead dump has been stabilised by plantation. The dead dump has been rehabilitated by plantation. | Slope of the dead dump has been stabilised by plantation. The dead dump has been rehabilitated by plantation. |
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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 2.0 ha area in eastern part of block F-1 | About 1.0 ha area has been backfilled. | About 1.0 ha area has been backfilled. The backfilled area is less than proposed as the bottom of the pit is not acheived. |
| 5b | Area under backfilling of mined out area | Backfilling 2.0 ha area in eastern part of block F-1 | About 1.0 ha area has been backfilled. | About 1.0 ha area has been backfilled. The backfilled area is less than proposed as the bottom of the pit is not acheived. |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32) | Only Backfilling of 2.0 ha area in eastern part of block F-1 | About 1.0 ha area has been backfilled. | About 1.0 ha area has been backfilled. The backfilled area is less than proposed as the bottom of the pit is not acheived. |
| 5d | Total area fully reclaimed and rehabilitated | Only Backfilling of 2.0 ha area in eastern part of block F-1 | About 1.0 ha area has been backfilled. | About 1.0 ha area has been backfilled. The backfilled area is less than proposed as the bottom of the pit is not acheived. |

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| 5e | General remarks of inspecting officers on backfilling and reclamation etc. | Only Backfilling of 2.0 ha area in eastern part of block F-1 | About 1.0 ha area has been backfilled. | About 1.0 ha area has been backfilled. The backfilled area is less than proposed as the bottom of the pit is not acheived. |
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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). | Not specified. | Annual return on PMCP has been submitted. | Annual return on PMCP has been submitted. |
| 6b | Area available for rehabilitation (ha) . | Only Backfilling of 2.0 ha area in eastern part of block F-1 | About 1.0 ha area has been backfilled. | About 1.0 ha area has been backfilled. The backfilled area is less than proposed as the bottom of the pit is not acheived. |
| 6c | afforestation done (ha). | 1.90 ha | In 2018-19, total area cover under afforestation is about 2.0 ha. | In 2018-19, total area cover under afforestation is about 2.0 ha. |
| 6d | No. of saplings planted during the year | 4750 nos. of saplings. | In 2018-19, total 6800 nos. of saplings have been planted by lessee. | In 2018-19, total 6800 nos. of saplings have been planted by lessee. |
| 6e | Cumulative no .of plants | Not specified. | Cumulative nos. of saplings planted in the lease area is about 313518. | Cumulative nos. of saplings planted in the lease area is about 313518. |
| 6f | Any other method of rehabilitation | Only Backfilling of 2.0 ha area in eastern part of block F-1 | About 1.0 ha area has been backfilled. | About 1.0 ha area has been backfilled. The backfilled area is less than proposed as the bottom of the pit is not acheived. |

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| 6g | Cost incurred on watch and care during the year | Not specified, | Around Rs 7.5 lakh cost incurred on watch and care. | Around Rs 7.5 lakh cost incurred on watch and care. |
| 6h | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D | Backfilling 2.0 ha area in eastern part of block F-1 | About 1.0 ha area has been backfilled. | About 1.0 ha area has been backfilled. The backfilled area is less than proposed as the bottom of the pit is not acheived. |
| 6i | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings | Backfilling 2.0 ha area in eastern part of block F-1 | About 1.0 ha area has been backfilled. | About 1.0 ha area has been backfilled. The backfilled area is less than proposed as the bottom of the pit is not acheived. |
| 6j | Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area | Backfilling 2.0 ha area in eastern part of block F-1 | About 1.0 ha area has been backfilled. | About 1.0 ha area has been backfilled. The backfilled area is less than proposed as the bottom of the pit is not acheived. |
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | Backfilling 2.0 ha area in eastern part of block F-1 | About 1.0 ha area has been backfilled. | About 1.0 ha area has been backfilled. The backfilled area is less than proposed as the bottom of the pit is not acheived. |
| 6l | Compliance on reclamation and rehabilitation by backfilling (v)any other specific means. | Backfilling 2.0 ha area in eastern part of block F-1 | About 1.0 ha area has been backfilled. | About 1.0 ha area has been backfilled. The backfilled area is less than proposed as the bottom of the pit is not acheived. |
| 6m | Compliance of rehabilitation of waste land within lease (i)afforestation | Not proposed. | Nil. | No waste land proposed for rehabilitation. |

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| 6n | Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha) | Not proposed. | Nil. | No waste land proposed for rehabilitation. |
| 6o | Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation | Not proposed. | Nil. | No waste land proposed for rehabilitation. |
| 6p | Compliance of environmental monitoring (core zone and buffer zone) | Quarterly monitoring | Quarterly monitoring of air, water and noise level are being carried out. | Quarterly monitoring of air, water and noise level are being carried out. |
| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. | Backfilling of 2.0 ha area in eastern part of block F-1 | About 1.0 ha area has been backfilled. | About 1.0 ha area has been backfilled. The backfilled area is less than proposed as the bottom of the pit is not achieved. |

Mineral Conservation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|----------------------------|--|--|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | Gradewise sorting | Gradewise sorting is being practiced. | Gradewise sorting is being practiced. |
| 7b | Method of grade-wise mineral sorting i.e. manual or mechanical. | Mechanised | Mechanised | Mechanised method is practiced. |
| 7c | Different grade of mineral sorted out at mines. | 45% to 55% Fe and +55% Fe. | Different grades of minerals sorted out at mines are 45% to 55% Fe and +55% to 65% Fe. | Different grades of minerals sorted out at mines are 45% to 55% Fe and +55% to 65% Fe. |

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| 7d | Any beneficiation process at mines . | Not proposed. | Only dry processing and screening of ROM is being practiced. | Only dry processing and screening of ROM is being practiced. |
| 7e | General remarks of inspecting officer on Mineral conservation and beneficiation issues | Gradewise sorting of ore is proposed 45% to 55% Fe and +55% Fe.. | Different grades of minerals sorted out at mines are 45% to 55% Fe and +55% to 65% Fe. | Only dry processing and screening of ROM is being practiced. There is no wet beneficiation process. |

Environment:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|--|---|---|
| 8a | Separate removal and utilization of topsoil (Rule 32) | Not proposed. | There is no top top soil generation as the mining is proposed in broken up area. | There is no top top soil generation as the mining is proposed in broken up area. |
| 8b | Concurrent use or storage of topsoil | Not proposed. | There is no top top soil generation as the mining is proposed in broken up area. | There is no top top soil generation as the mining is proposed in broken up area. |
| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | Separate dumping overburden, mineral reject and fines stack | Mineral reject generated has been blended with high grade ROM. Overburden material generated has been dumped in waste dump in Block A and Block F1 as per proposal. | Mineral reject generated has been blended with high grade ROM. Overburden material generated has been dumped in waste dump in Block A and Block F1 as per proposal. |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | Only Backfilling of 2.0 ha area in eastern part of block F-1 | About 1.0 ha area has been backfilled. | About 1.0 ha area has been backfilled. The backfilled area is less than proposed as the bottom of the pit is not acheived. |

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| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | Only Backfilling of 2.0 ha area in eastern part of block F-1 | About 1.0 ha area has been backfilled. | About 1.0 ha area has been backfilled. The backfilled area is less than proposed as the bottom of the pit is not acheived. |
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41) | 4750 nos. of saplings in 2018-19. | Total 6800 nos. saplings have been planted in 2018-19. Cumulative 313518 nos. have been planted by lessee . | Total 6800 nos. saplings have been planted in 2018-19. Cumulative 313518 nos. have been planted by lessee . |
| 8g | Survival rate | Not specified. | As reported survival rate is 75%. | As reported survival rate is 75%. |
| 8h | Water sprinkling on roads to control airborne dust | Water tanker and fixed water sprinkler. | Water tanker and fixed water sprinkler of 7 km along haul road are used to control air borne dust. | Water tanker and fixed water sprinkler of 7 km along haul road are used to control air borne dust. |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area | 4750 nos. of saplings in 2018-19 to maintain the aesthetic beauty. | Aesthetic beauty in and around mines area is maintained by plantation. Total 6800 nos. saplings have been planted in 2018-19. Cumulative 313518 nos. have been planted by lessee . | Aesthetic beauty in and around mines area is maintained by plantation. |

Compliance of Rule 45:

| Sl.No. | Item | Propasals | Actual work | Remarks |
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| 9a | Status of submission of Monthly and Annual returns | Monthly & Annual returns are being regularly submitted by lessee. | Monthly & Annual returns are being regularly submitted by lessee. | Monthly & Annual returns are being regularly submitted by lessee. |

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| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | The employment status of mining engineer, geologist & mine manager have been furnished in the annual return | Mining engineer, geologist & mine managers were employed in the mine. | Mining engineer, geologist & mine managers were employed in the mine. |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Area covered under different heads are Pit-131.011 ha, waste dump-11.110 ha, Plant, residential & building, roads-13.881ha & others - 50.011 ha. | Area covered under different heads are Pit-131.011 ha, waste dump-11.110 ha, Plant, residential & building, roads-13.881ha & others -50.011 ha. | Area covered under different heads are Pit-131.011 ha, waste dump-11.110 ha, Plant, residential & building, roads-13.881ha & others -50.011 ha. |
| 9d | Scrutiny of Annual return on afforestation | Number of trees planted during the year 6800 nos. | Number of trees planted during the year 6800 nos. | Number of trees planted during the year 6800 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 of ROM is 1318948.160 tonnes and Dump Workings-1547854.730 tonnes. | Closing Stock of ROM is 1318948.160 tonnes and Dump Workings-1547854.730 tonnes. | Closing Stock of ROM is 1318948.160 tonnes and Dump Workings-1547854.730 tonnes. |

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| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | Ex-mine price (in Rs. Per Tonne) Lumps (Grades (% of Fe content) (i) 58% to below 60%: Rs 1724.00 (ii) 62% to below 65%: Rs 3452.00 Fines (Grades (% of Fe content) (i) 62% to below 65%: Rs 1872.00 | Ex-mine price (in Rs. Per Tonne) Lumps (Grades (% of Fe content) (i) 58% to below 60%: Rs 1724.00 (ii) 62% to below 65%: Rs 3452.00 Fines (Grades (% of Fe content) (i) 62% to below 65%: Rs 1872.00 | Ex-mine price (in Rs. Per Tonne) Lumps (Grades (% of Fe content) (i) 58% to below 60%: Rs 1724.00 (ii) 62% to below 65%: Rs 3452.00 Fines (Grades (% of Fe content) (i) 62% to below 65%: Rs 1872.00 |
| 9h | Scrutiny of Annual return on fixed assets | Value of Fixed Assets (in Rs) 527639060/- | Value of Fixed Assets (in Rs) 527639060/- | Value of Fixed Assets (in Rs) 527639060/- |
| 9k | Scrutiny of Annual return on mining machineries | SHOVEL (HYDRAULIC) 9/4.5/4.2/3/1 cu.m- 37, DUMPER 100/85/50/31T-35, CRUSHER-14, WATER TANKER -10, ROCK DRILL (NON-ELEC.) 115.000 MM- 3 | SHOVEL (HYDRAULIC) 9/4.5/4.2/3/1 cu.m- 37, DUMPER 100/85/50/31T-35, CRUSHER-14, WATER TANKER -10, ROCK DRILL (NON-ELEC.) 115.000 MM- 3 | SHOVEL (HYDRAULIC) 9/4.5/4.2/3/1 cu.m- 37, DUMPER 100/85/50/31T-35, CRUSHER-14, WATER TANKER -10, ROCK DRILL (NON-ELEC.) 115.000 MM- 3 |

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

| Violation observed | | Show cause position | |
|--------------------|-------------------------|---------------------|-------------------------|
| Rule NO. | Issued on Compliance on | Rule NO. | Issued on Compliance on |

Date :

(DAYANAND UPADHYAY)

Indian Bureau of Mines