

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/SNG/MCDR-5/BBS

Mine code : 30ORI13016

- (i) Name of the Inspecting : **U11**) **DAYANAND UPADHYAY**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri S.C. Pradhan, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 30/08/2021
- (v) Prev.inspection date : 06/04/2021

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **ORAGHAT**
- (b) **Registration NO.** : **IBM/4585/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : ORISSA
District : SUNDARGARH
Village : ORGHAT
Taluka : BONAI
Post office : KOIRA
Pin Code :
FAX No. : 06767-275161
E-mail : rungtas@rungtamines.com
Phone : 06767-275221, 275481
- (f) Police Station : Koira
- (g) First opening date : 10/12/1986
- (h) Weekly day of rest : SAT
2. Address for : VILL: ORAGHAT AND SANINDPUR
correspondance PO: KOIRA
PIN: 770048
3. (a) Lease Number : ORI0146
- (b) Lease area : 82.92
- (c) Period of lease : 20
- (d) Date of Expiry : 09/12/2002
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : M/s Rungta Sons (P) Ltd
 Rungta House P.O.
 Chaisabasa SINGHBHUM
 (WEST) JHARKHAND
 Phone:(06582) 56861/56761
 FAX :91 6582 56442

Owner : M D RUSTAGI, NOMINATED OWNER
 RUNGTA OFFICE,MAIN ROAD,
 BARBIL AT/PO- BARBIL,DIST-
 KEONJHAR SUNDARGARH ORISSA
 Phone:
 FAX :

Agent : A. S. Mahapatra
 Rungta office, Main Road
 Barbil Disr-Keonjhar
 KEONJHAR ORISSA
 Phone: 06767-276441
 FAX : 06767-275481

Mining Engineer

Name : AMITESH CHARAN,Full Time
 Qualification : B.E MINING
 Appointment/ : 10/05/2012
 Termination date

Geologist

Name : H Biswal,Full Time
 Qualification : M.Sc Geology
 Appointment/ : 01/11/2015
 Termination date

Manager

Name : A K CHOUDHURY
 Qualification : B E MINING
 Appointment/ : 25/05/2008
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	05/10/2001
		Modif.approved Mining Scheme	15/02/2008
		Modif.approved Mining Scheme	17/08/2009
		Mining Scheme rule 12 MCDR1988	28/05/2010
		Renewal under rule 24 MCR1960	20/07/2012
		MP modif under MCR 1960	20/07/2012
		Modif.approved Mining Scheme	08/07/2015
		Modif.of approved Mining Plan	02/06/2016
		MP modif under 17(3) MCR 2016	28/12/2016
		MP review under 17(1) MCR 2016	10/10/2017
		MP modif under 17(3) MCR 2016	28/04/2020
		MS modif under MCR 1960	23/04/2021

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	46nos of boreholes were proposed during the year 2020-21.	58nos of boreholes with total meterage 4012.3m has been drilled during the year 2020-21.	58nos of boreholes with total meterage 4012.3m has been drilled during the year 2020-21.
1b	Exploration over lease area for geological axis 1 or 2	G1/G2 level	Total lease area of 82.961ha has been explored under G1/G2 level of exploration.	Total lease area is explored under G1/G2 level of exploration. About 78.65 ha area is explored under G1 level and 4.3111 ha area is under G2 level.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not specified.	Exploration agency involved in drilling was Geotech India pvt ltd and expenditure incurred during drilling was Rs 169.03 lakhs.	Exploration agency involved in drilling was Geotech India pvt ltd and expenditure incurred during drilling was Rs 169.03 lakhs.
1d	Balance area to be explored to bring Geological axis in 1 or 2	Within the G1/G2 level of already explored area.	Total lease area of 82.961ha has been explored under G1/G2 level of exploration.	Total lease area of 82.961ha has been explored under G1/G2 level of exploration.
1e	Balance reserve as on 01/04/20	As per approved Modification of Review of mining plan dated 23/04/2021, Reserve:- 62.16 million tonne and Resources 9.57 million tonn	Balance reserve as on 01/04/2021, Reserve:- 62.16 million tonne and Resources 9.57 million tonne.	Balance reserve as on 01/04/2021, Reserve:- 62.16 million tonne and Resources 9.57 million tonne.

1f	General remarks of inspecting officers on geology, exploration etc	46nos of boreholes were proposed during the year 2020-21.	58nos of boreholes with total meterage 4012.3m has been drilled during the year 2020-21.	Total lease area is explored under G1/G2 level of exploration. About 78.65 ha area is explored under G1 level and 4.3111 ha area is under G2 level.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Kusum pit, S210-N480 and E120-1085.	The development is carried out in Kusum pit within the approved proposal.	The development is concentrated in Kusum pit within the approved proposal.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in OB and ore, no top soil bench proposed.	Separate benches in OB and ore of 9m height have been maintained.	Separate benches in OB and ore of 9m height have been maintained.
2c	Stripping ratio or ore to OB ratio	1:0.25 T/cu.m	1:0.02 T/cu.m	Due to less ROM production OB generated less.
2d	Quantity of topsoil generation in m3	Not proposed. as working is proposed broken up area.	There is no top soil generation.	There is no top soil generation.
2e	Quantity of overburden generation in m3	1812159 Cum	122459.82 cu.m	Due to less ROM production OB generated less.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Development proposed in Kusum pit	The development is carried out in Kusum pit as per the approved proposal.	The development is carried out in Kusum pit as per the approved proposal.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
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3a	Number of pit proposed for production	One pit in 2020-21.	One pit i.e Kusum pit.	Working is concentrated in Kusum pit.
3b	Quantity of ROM mineral production proposed	7.35 MillionT insitu and 1.0 MillionT from dump re-handling.	ROM production reported in 2020-21 is 4.24 MillionT insitu and 866411T from dump re-handling.	ROM production reported in 2020-21 is 4.24 MillionT insitu and 866411T from dump re-handling.
3c	Recovery of saleable/usable mineral from ROM production	7.35 MillionT insitu	Saleable ROM reported in 2020-21 is 4.24 MillionT insitu.	Saleable ROM reported in 2020-21 is 4.24 MillionT insitu.
3d	Quantity of mineral reject generation	Not proposed as per approved.modification of review of mining plan.	Nil.	Nil.
3e	Grade of mineral rejects generation and threshold value declared.	Not proposed as per approved.modification of review of mining plan.	Nil.	nil.
3f	Quantity of sub grade mineral generation.	Not proposed as per approved.modification of review of mining plan.	Nil.	Nil.
3g	Grade of sub grade mineral generation	Not proposed as per approved.modification of review of mining plan.	Nil.	Nil.
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	Mechanised method is adopted.
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 110mm dia. Blast hole with emulsion/slurry explosive as column charge and booster alongwith delay detonator.	Drilling and blasting is carried out with DTH drilling of 110mm dia. Blast hole with emulsion/slurry explosive as column charge and booster alongwith delay detonator.	Deep holes drilling and blasting is practiced to winning out the ore and OB.
3k	Provision of mining machineries in mineral benches	Shovel and dumper combination.	Shovel and dumper combination.	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- 9m	Bench height is suitably matched with the excavator.	Bench height is suitably matched with the excavator.
3m	Total area covered under excavation/pits	57.919ha proposed during approved plan period.	About 56.312 ha area has been covered under excavation pits.	About 56.312 ha area has been covered under excavation pits.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.25	1:0.12	The OB generation is less as proposed ROM production is not acheived.
3o	Total area put in use under different heads at the end of year	Total area proposed during plan period under different heads are 79.12 ha.	Total area covered under different heads at end of year are 73.466ha.	Total area covered under different heads at end of year are 73.466ha.

3p	Production of ROM mineral during the last five year period as applicable	2015-16:- 5.0 million T 2016-17:- 5.02 million T 2017-18:- 7.35 million T 2018-19:- 5.0 million T 2019-20: 7.35 million T 2020-21: 7.35 million T	2015-16:- 1559386.34T 2016-17:- 2084891.99T 2017-18:- 3007794.335T 2018-19:-3499981.630T 2019-20: 4389044.49T 2020-21: 4241667.595T	ROM Production is within approved proposal.
3q	General remarks of inspecting officers on method of mining etc.	ROM production is proposed in one pit i.e Kusum pit.	ROM production is carried out in one pit i.e Kusum pit as per the approved proposal.	ROM production is carried out in one pit i.e Kusum pit as per the approved proposal.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	OB/waste proposed to back-fill in Kendu Pit. No mineral reject and top soildump proposed.	OB/waste generated has been back-filled in Kendu Pit.	OB/waste generated has been back-filled in Kendu Pit.
4b	Location of topsoil, OB and mineral reject dumps	OB/waste proposed to back-fill in Kendu Pit. No mineral reject and top soildump proposed.	OB/waste generated has been back-filled in Kendu Pit.	OB/waste generated has been back-filled in Kendu Pit.
4c	Number of dumps within lease area and outside of lease area	02 dumps within lease area.	02 dumps within lease area.	02 dumps within lease area.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside UPL.	Outside UPL.	Outside UPL.
4e	Number of active and alive dumps.	OB/waste proposed to back-fill in Kendu Pit.	OB/waste has backfilled in exhausted part of Kendu Pit.	OB/waste has backfilled in exhausted part of Kendu Pit.

4f	Number of dead dumps.	One dead dump	There is one dead dump.	The dead dump is stabilized by plantation.
4g	Number of dumps established.	One dead dump	The dead dump is stabilized by plantation.	The dead dump is stabilized by plantation.
4h	Whether Retaining wall or garland drain all along dumps are there.	500m Retaining wall and 436m garland drain along backfill area.	Retaining wall and garland drain has been partially completed. Deviation is pointed out through violation letter.	Retaining wall and garland drain has been partially completed. Deviation is pointed out through violation letter.
4i	Length of Retaining wall or garland drain all along dumps	500m Retaining wall and 436m garland drain along backfill area.	Retaining wall and garland drain has been partially completed. Deviation is pointed out through violation letter.	Retaining wall and garland drain has been partially completed. Deviation is pointed out through violation letter.
4j	Number of settling ponds	01 nos. of settling ponds.	01 nos. of settling ponds.	Proposed settling ponds constructed by lessee.
4k	Specific comments of inspecting officer on waste dump management	OB/waste proposed to back-fill in Kendu Pit.	The waste generated in 2020-21 has been backfilled in exhausted part of Kendu Pit.	The waste generated in 2020-21 has been backfilled in exhausted part of Kendu Pit.

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.	Proposed to back-fill exhausted part of Kendu Pit.	OB/waste generated has been backfilled in exhausted part of Kendu Pit.	OB/waste generated has been backfilled in exhausted part of Kendu Pit.
5b	Area under backfilling of mined out area	Proposed to backfill 1.441 ha area in 2020-21.	About 0.25 ha area has been backfilled in exhausted part of Kendu Pit in 2020-21.	The deviation of backfilling has been pointed out through violation letter.

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No top soil proposed.	There is no generation of top soil.	There is no generation of top soil.
5d	Total area fully reclaimed and rehabilitated	Proposed to backfill 1.441 ha area in 2020-21.	About 0.25 ha area has been backfilled in exhausted part of Kendu Pit in 2020-21.	About 0.25 ha area has been backfilled in exhausted part of Kendu Pit in 2020-21. The deviation of backfilling has been pointed out through violation letter.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Proposed to backfill 1.441 ha area in 2020-21.	About 0.25 ha area has been backfilled in exhausted part of Kendu Pit in 2020-21.	About 0.25 ha area has been backfilled in exhausted part of Kendu Pit in 2020-21. The deviation of backfilling has been pointed out through violation letter.

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).	As per provision of MCDR 2017.	Annual return on PMCP has been submitted.	Annual return on PMCP has been submitted.
6b	Area available for rehabilitation (ha) .	Proposed to backfill 1.441 ha area in 2020-21.	About 0.25 ha area has been backfilled in exhausted part of Kendu Pit in 2020-21.	About 0.25 ha area has been backfilled in exhausted part of Kendu Pit in 2020-21. The deviation of backfilling has been pointed out through violation letter.

6c	afforestation done (ha).	1.20 ha	About 1.30 ha area covered under afforestation by 18000 nos of saplings.	About 1.30 ha area covered under afforestation by 18000 nos of saplings.
6d	No. of saplings planted during the year	6500 nos saplings.	About 1.30 ha area covered under afforestation by 18000 nos of saplings.	About 1.30 ha area covered under afforestation by 18000 nos of saplings.
6e	Cumulative no .of plants	Not specified.	Cumulative nos. of saplings planted in the lease area is about 144912 no.	Cumulative nos. of saplings planted in the lease area is about 144912 no.
6f	Any other method of rehabilitation	Proposed to backfill 1.441 ha area in 2020-21.	About 0.25 ha area has been backfilled in exhausted part of Kendu Pit in 2020-21.	About 0.25 ha area has been backfilled in exhausted part of Kendu Pit in 2020-21. The deviation of backfilling has been pointed out through violation letter.
6g	Cost incurred on watch and care during the year	Not specified.	Around Rs4.57 lakh cost incurred on watch and care.	Around Rs4.57 lakh cost incurred on watch and care.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Proposed to backfill 1.441 ha area in 2020-21.	About 0.25 ha area has been backfilled in exhausted part of Kendu Pit in 2020-21.	About 0.25 ha area has been backfilled in exhausted part of Kendu Pit in 2020-21.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Proposed to backfill 1.441 ha area in 2020-21.	About 0.25 ha area has been backfilled in exhausted part of Kendu Pit in 2020-21.	About 0.25 ha area has been backfilled in exhausted part of Kendu Pit in 2020-21.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Proposed to backfill 1.441 ha area in 2020-21.	About 0.25 ha area has been backfilled in exhausted part of Kendu Pit in 2020-21.	About 0.25 ha area has been backfilled in exhausted part of Kendu Pit in 2020-21.

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Proposed to backfill 1.441 ha area in 2020-21.	About 0.25 ha area has been backfilled in exhausted part of Kendu Pit in 2020-21.	About 0.25 ha area has been backfilled in exhausted part of Kendu Pit in 2020-21.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Proposed to backfill 1.441 ha area in 2020-21.	About 0.25 ha area has been backfilled in exhausted part of Kendu Pit in 2020-21.	About 0.25 ha area has been backfilled in exhausted part of Kendu Pit in 2020-21.
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not proposed.	Safety zone has been rehabilitated by plantation.	Safety zone has been rehabilitated by plantation.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not proposed.	Safety zone has been rehabilitated by plantation.	Safety zone has been rehabilitated by plantation.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not proposed.	Safety zone has been rehabilitated by plantation.	Safety zone has been rehabilitated by plantation.
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.	Proposed to backfill 1.441 ha area in 2020-21.	About 0.25 ha area has been backfilled in exhausted part of Kendu Pit in 2020-21.	About 0.25 ha area has been backfilled in exhausted part of Kendu Pit in 2020-21. The deviation of backfilling has been pointed out through violation letter.

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.	Mechanized	Mechanized method is practiced.	Mechanized method is practiced.
7c	Different grade of mineral sorted out at mines.	+55% Fe.	Different grades of minerals sorted out at mines are +55% Fe.	Different grades of minerals sorted out at mines are +55% Fe.
7d	Any beneficiation process at mines .	Not proposed	Only crushing and screening is being carried out at mines site.	Only crushing and screening is being carried out at mines site.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Gradewise sorting.	Gradewise sorting. Dry crushing and screening is being carried out at mines site.	Dry crushing and screening is being carried out at mines site.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No top top soil generation is proposed.	Nil.	No top top soil generation is proposed.
8b	Concurrent use or storage of topsoil	No top top soil generation is proposed.	Nil.	No top top soil generation is proposed.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	OB/waste proposed to back-fill in Kendu Pit. No mineral reject and top soil generation proposed.	The waste generated has been backfilled in exhausted part of Kendu Pit.	The waste generated has been backfilled in exhausted part of Kendu Pit.

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	OB/waste proposed to back-fill in Kendu Pit. No mineral reject and top soil generation proposed.	The waste generated has been backfilled in exhausted part of Kendu Pit.	The waste generated has been backfilled in exhausted part of Kendu Pit.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	OB/waste proposed to back-fill in Kendu Pit.	The waste generated has been backfilled in exhausted part of Kendu Pit.	The waste generated has been backfilled in exhausted part of Kendu Pit.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	6500 nos saplings.	In 2020-21, 18000 nos. of saplings have been planted by lessee.	In 2020-21, 18000 nos. of saplings have been planted by lessee.
8g	Survival rate	Not specified.	As reported survival rate is 79%.	As reported survival rate is 79%.
8h	Water sprinkling on roads to control airborne dust	Mobile water sprinkler.	Mobile water sprinklers are used to control air borne dust.	Mobile water sprinklers are used to control air borne dust.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	6500 nos saplings in 2020-21	In 2020-21, 18000 nos. of saplings have been planted by lessee. Aesthetic beauty in and around mines area is maintained by plantation.	Aesthetic beauty in and around mines area is maintained by plantation.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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.

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.	Pit-36.312ha, Dump-9.53ha, Infrastructure-2.99ha, Reclamation-2.594ha,Others-2.04ha	Pit-36.312ha, Dump-9.53ha, Infrastructure-2.99ha, Reclamation-2.594ha,Others-2.04ha	Pit-36.312ha, Dump-9.53ha, Infrastructure-2.99ha, Reclamation-2.594ha,Others-2.04ha
9d	Scrutiny of Annual return on afforestation	18000 nos. of saplings	18000 nos. of saplings	18000 nos. of saplings
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil.	Nil.	Nil.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing stock of different grade of iron ore, 55-58%Fe, 58-60%Fe, 60-62%Fe-, 62-65%Fe are furnished annual return.	Closing stock not matched with dispatch quantity. Ex mine price also not matched. deviation is pointed out through violation letter.	Closing stock not matched with dispatch quantity. Ex mine price also not matched. deviation is pointed out through violation letter.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex mine price of different grade of iron ore, 55-58%Fe, 58-60%Fe, 60-62%Fe-, 62-65%Fe are furnished annual return.	Closing stock not matched with dispatch quantity. Ex mine price also not matched. deviation is pointed out through violation letter.	Closing stock not matched with dispatch quantity. Ex mine price also not matched. deviation is pointed out through violation letter.
9h	Scrutiny of Annual return on fixed assets	Fixed asset as furnished in AR is Rs 253832000/	Fixed asset as furnished in AR is Rs 253832000/	Fixed asset as furnished in AR is Rs 253832000/

9k	Scrutiny of Annual return on mining machineries	Machineries used at mine site are Back Hoe-27, Crusher-4, LHD-30, Dumper 35T-59, Water Tanker-13 etc.	Machineries used at mine site are Back Hoe-27, Crusher-4, LHD-30, Dumper 35T-59, Water Tanker-13 etc.
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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
MCDR17	Rule 11(1)	10/09/2021			
MCDR17	Rule 45(5)(c)	10/09/2021			

Date :

(DAYANAND UPADHYAY)

Indian Bureau of Mines