

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/MN/MCDR-9/BBS

Mine code : 40ORI08023

- (i) Name of the Inspecting : **U11**) **DAYANAND UPADHYAY**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : ShriSaroj Dash, Sr.Manager (Geology)
Official with
Designation
- (iv) Date of Inspection : 27/02/2020
- (v) Prev.inspection date : 22/12/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KATASAI**
- (b) **Registration NO.** : **IBM/4585/2011**
- (c) Category : A Manual
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : KEONJHAR
- Village : KATASAI
- Taluka : BARBIL
- Post office : CHORMALDA
- Pin Code :
- FAX No. : 91 6767 276161
- E-mail : rungta_bbl@yahoo.co.in
- Phone : 06767 275221 / 275481
- (f) Police Station : Barbil
- (g) First opening date : 13/02/1957
- (h) Weekly day of rest : TUE
2. Address for : KATASAI MANGANESE MINE, M/S RUNGTA SONS (P) LTD
correspondance P.O.CHORMALDA, DIST :KEONJHAR
ORISSA-758035
3. (a) Lease Number : ORI0185
- (b) Lease area : 196.86
- (c) Period of lease :
- (d) Date of Expiry : 31/03/2020
4. Mineral worked : MANGANESE 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 : RUNGTA SONS (P) LTD.
 RUNGTA HOUSE CHAIBASA
 SINGHBHUM (WEST) JHARKHAND
 Phone: 06582-56861,567
 FAX : 91-6582-56442

Agent : D.R.OJHA
 C/O BICO LTD AT O.P.BARBIL
 KEONJHAR ORISSA
 Phone: 06596-62321,62221
 FAX :

Geologist

Name : SHRI TANMAYA PANDA,Full Time
 Qualification : MSC GEOLOGY
 Appointment/ : 01/11/2015
 Termination date

Manager

Name : SHRI SUNIL KUMAR
 Qualification : DIPLOMA IN MINING ENGG
 Appointment/ : 22/03/2017
 Termination date

6. Date of approval of Mining	:	Renewal under rule 22 MCR1960	19/09/2000
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	06/07/2010
		Mining Scheme rule 12 MCDR1988	07/04/2015
		MP modif under 17(3) MCR 2016	06/09/2016
		MP modif under 17(3) MCR 2016	08/02/2018
		MP modif under 17(3) MCR 2016	18/07/2018
		FMCP under 23C(1)	27/09/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	78 nos of boreholes.	In year 2018-19, 26 nos of boreholes were drilled by lessee.	The balance exploration not carried out due to private tenent land. The violation was earlier observed for not acheiving the exploration vide letter dated 06.09.2019.
1b	Exploration over lease area for geological axis 1 or 2	G1/G2 level of exploration.	About 128.85 ha area has been explored under G1 level and 43.03 ha area has been explored under G2 level.	About 128.85 ha area has been explored under G1 level and 43.03 ha area has been explored under G2 level.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Exploration agency not specified prior to execute of proposed drilling.	M/s SPS geomining Solutions (p) Ltd, agency involved in drilling. Cost incurred in drilling was Rs 537372/-.	M/s SPS geomining Solutions (p) Ltd, agency involved in drilling. Cost incurred in drilling was Rs 537372/-.
1d	Balance area to be explored to bring Geological axis in 1 or 2	48.98 ha	About 24.0 ha area has been explored by putting 26 nos. of bore holes.	About 128.85 ha area has been explored under G1 level and 43.03 ha area has been explored under G2 level.
1e	Balance reserve as on 01/04/20	As per the approved mining plan 18.07.2018 the managanese reserves are under category 111: 0.344 million tonnes, 122: 8855 t.	Reserves as on 01.04.2019 are under category 111: 0.342 million tonnes, 122: 8855 t	Reserves as on 01.04.2019 are under category 111: 0.342 million tonnes, 122: 8855 t

1f	General remarks of inspecting officers on geology, exploration etc	78 nos of boreholes in 2018-19 covering 48.98 ha area under G1/G2.	About 128.85 ha area has been explored under G1 level and 43.03 ha area has been explored under G2 level.	About 128.85 ha area has been explored under G1 level and 43.03 ha area has been explored under G2 level.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	5 nos of pits called GS pit, Nala pit, Quarry 6&7, Rola & Central pit, Bottom pit are proposed for development for the year 2018-19	3 nos of pits called Quarry 6&7, Rola & Central pit, Bottom pit are developed during the year.	The other pits not developed due to want of tree felling permission.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Seperate benches in OB and mineral are proposed, no top soil bench is proposed.	Seperate benches in mineral and OB are maintained.	Seperate benches in mineral and OB are maintained.
2c	Stripping ratio or ore to OB ratio	1: 10.11 t/cu.m.	1: 24.75 t/cu.m.	The stripping ratio is high due to more generation of waste due to poor recovery of mineral.
2d	Quantity of topsoil generation in m3	Not proposed.	No generation of top soil is proposed.	No generation of top soil is proposed.
2e	Quantity of overburden generation in m3	195104 cu.m.	46738 cu.m.	Less quantity of OB generated due to less production of ROM as proposed.

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	5 nos of pits called GS pit, Nala pit, Quarry 6&7, Rola & Central pit, Bottom pit are proposed for development for the year 2018-19	3 nos of pits called Quarry 6&7, Rola & Central pit, Bottom pit are developed during the year.	The other pits not developed due to want of tree felling permission.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	5 nos of pits called GS pit, Nala pit, Quarry 6&7, Rola & Central pit, Bottom pit are proposed for development for the year 2018-19	3 nos of pits called Quarry 6&7, Rola & Central pit, Bottom pit are developed during the year.	The other pits not developed due to want of tree felling permission.
3b	Quantity of ROM mineral production proposed	19291 tonnes	1888.129 t	ROM Production is less due to low market demand.
3c	Recovery of sailable/usable mineral from ROM production	Saleable ore production is 15433 t	Saleable ore production is 1874.129 t	ROM Production is less due to low market demand.
3d	Quantity of mineral reject generation	3858 t	14 t	Mineral reject generation is less due to less ROM Production.
3e	Grade of mineral rejects generation and threshold value declared.	+10%-25% Mn	+10%-25% Mn	Mineral reject/sub grade generated during 2018-19 is 14T of grade 10-25% Mn.
3f	Quantity of sub grade mineral generation.	3858 t	14 t	Mineral reject generation is less due to less ROM Production.

3g	Grade of sub grade mineral generation	+10%-25% Mn	+10%-25% Mn	Mineral reject/sub grade generated during 2018-19 is 14T of grade 10-25% Mn.
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	Manual for Mn ore.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not proposed.	Manual screening and sorting are being carried out at mines site.	Manual screening and sorting are being carried out at mines site.
3j	Provision of drilling and blasting in mineral benches	Short hole drilling and blasting is proposed for mineral benches.	Short hole drilling and blasting is carried out for mineral benches.	Short hole drilling and blasting is carried out for mineral benches.
3k	Provision of mining machineries in mineral benches	Excavator and dumper combination is proposed for excvaion and hauling of material.	Excavator and dumper combination is deployed for excvaion and hauling of material.	Excavator and dumper combination is deployed for excvaion and hauling of material.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height 3-6m	Bench height is suitably matched with the excavator.	Bench height is suitably matched with the excavator.
3m	Total area covered under excavation/pits	50.606 ha at the end of plan period i.e. 2019-20.	About 44.486 ha area has been covered under excavation pits.	About 44.486 ha area has been covered under excavation pits.
3n	Ore to OB ratio for the pit/mine during the year.	1: 10.11 t/cu.m.	1: 24.75 t/cu.m.	The stripping ratio is high due to more generation of waste due to poor recovery of mineral.

3o	Total area put in use under different heads at the end of year	Mining: 50.606 ha, waste dumping: 8.679 ha, mineral storage: 7.09 ha, infra&Roads: 5.696 ha till the ned of mining plan period i.e. 2019-20.	Mining: 44.486 ha, waste dumping: 7.0391 ha, mineral storage: 7.09 ha, infra&Roads: 3.22 ha	Mining: 44.486 ha, waste dumping: 7.0391 ha, mineral storage: 7.09 ha, infra&Roads: 3.22 ha
3p	Production of ROM mineral during the last five year period as applicable	2014-15: 19291 t 2015-16: 13469 t 2016-17: 19291 t 2017-18: 19291 t 2018-19: 19291 t	2014-15: 317.626 t 2015-16: 112.136 t 2016-17: 241.596 t 2017-18: 895.293 t 2018-19: 1888.129 t	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 in 5 nos of pits called GS pit, Nala pit, Quarry 6&7, Rola & Central pit, Bottom pit	The ROM production has been carried out in 3 nos of pits called Quarry 6&7, Rola & Central pit, Bottom pit are developed during the year.	The other pits not developed due to want of tree felling permission.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No genreation of top soil is proposed and seperate dumping of OB and mineral reject are proposed.	Seperate dumping of OB and mineral reject are carried out.	Seperate dumping of OB and mineral reject are carried out.

4b	Location of topsoil, OB and mineral reject dumps	No top soil generation is proposed. Two nos of dumps D1 and D2 are propsoed.	The OB and mineral rejct generated during mining are dumped in the designated area.	The OB and mineral rejct generated during mining are dumped in the designated area.
4c	Number of dumps within lease area and outside of lease area	2 nos of dumps	2 nos of dumps	2 nos of dumps are located in the lease area.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Beyond UPL	Beyond UPL	Dumps are located beyond UPL.
4e	Number of active and alive dumps.	2 nos of dumps	2 nos of dumps	2 nos of dumps are located in the lease area.
4f	Number of dead dumps.	Not proposed.	Nil.	No any dead dump in lease area.
4g	Number of dumps established.	Not proposed.	Nil.	No any dead dump in lease area.
4h	Whether Retaining wall or garland drain all along dumps are there.	330 m of reataining wall and 250 m garland drain.	Proposed Retaining wall and a garland drain have been completed.	Proposed Retaining wall and a garland drain have been completed.
4i	Length of Retaining wall or garland drain all along dumps	330 m of reataining wall and 250 m garland drain.	Proposed Retaining wall and a garland drain have been completed.	Proposed Retaining wall and a garland drain have been completed.
4j	Number of settling ponds	Not proposed.	Nil.	2 nos of settling ponds are already constrcuted and mainatined.
4k	Specific comments of inspecting officer on waste dump management	No top soil generation is proposed. Two nos of dumps D1 and D2 are propsoed.	The OB and mineral rejct generated during mining are dumped in the designated area.	Slope of the dumps have been stabilized by plantation.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No proposal	Nil	Pits are not matured for backfilling.
5b	Area under backfilling of mined out area	No proposal	Nil	Pits are not matured for backfilling.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Nil	Pits are not matured for backfilling.
5d	Total area fully reclaimed and rehabilitated	No proposal	Nil	Pits are not matured for backfilling.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	No proposal	Nil.	Pits are not matured for backfilling.

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) .	No proposal	Nil	Pits are not matured for backfilling.
6c	afforestation done (ha).	1 ha during the year 2018-19.	In 2018-19, total area cover under afforestation is about 1.0 ha.	In 2018-19, total area cover under afforestation is about 1.0 ha.
6d	No. of saplings planted during the year	2500 nos	4000 nos	In 2018-19, total 4000 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 83652 nos.	Cumulative nos. of saplings planted in the lease area is about 83652 nos.
6f	Any other method of rehabilitation	No proposal	Nil	Pits are not matured for reclamation and rehabilitation.
6g	Cost incurred on watch and care during the year	Not specified.	Around Rs 0.3 lakh cost incurred on watch and care.	Around Rs 0.3 lakh cost incurred on watch and care.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal	Pits are not matured for reclamation and rehbilitation.	Pits are not matured for reclamation and rehbilitation.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	Pits are not matured for reclamation and rehbilitation.	Pits are not matured for reclamation and rehbilitation.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	No proposal	Pits are not matured for reclamation and rehbilitation.	Pits are not matured for reclamation and rehbilitation.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Pits are not matured for reclamation and rehbilitation.	Pits are not matured for reclamation and rehbilitation.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	Pits are not matured for reclamation and rehbilitation.	Pits are not matured for reclamation and rehbilitation.

6m	Compliance of rehabilitation of waste land within lease (i)afforestation	1 ha	About 1.0 ha area, plantation is carried out.	About 1.0 ha area, plantation is carried out.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	1.0 ha	About 1.0 ha area, plantation is carried out.	About 1.0 ha area, plantation is carried out.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	1.0 ha	About 1.0 ha area, plantation is carried out.	About 1.0 ha area, plantation is carried out.
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.	No proposal of backfilling.	Pits are not matured for reclamation and rehabilitation.	Pits are not matured for reclamation and rehabilitation.

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.	Manual for Mn ore	Manual for Mn ore	Manual for Mn ore
7c	Different grade of mineral sorted out at mines.	25% to 46% Mn	Different grades of minerals sorted out at mines are 25% to 46% Mn	Different grades of minerals sorted out at mines are 25% to 46% Mn

7d	Any beneficiation process at mines .	Not proposed.	Only sorting and screening Of ROM is being practiced.	Only sorting and screening Of ROM is being practiced.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Gradewise sorting is proposed Manual for Mn ore.	Cut off grade of Mn ore for the mine is +25%. Different grades of minerals sorted out at mines are 25% to 46% Mn	Different grades of minerals sorted out at mines are 25% to 46% Mn

Environment :

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not proposed.	Nil.	No top top soil generation is proposed.
8b	Concurrent use or storage of topsoil	Not proposed.	Nil.	No top top soil generation is proposed.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	sperate dumps for OB, mineral rejects and fines area proposed.	Sperate dumps for OB, mineral rejects are maintained.	Sperate dumps for OB, mineral rejects are maintained.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Pits are not matured for reclamation and rehabilitation.	Pits are not matured for reclamation and rehabilitation.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Pits are not matured for reclamation and rehabilitation.	Pits are not matured for reclamation and rehabilitation.

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	2500 nos proposed for afforestation during the year 2018-19.	4000 nos plantation carried out in waste land and dump management.	4000 nos plantation carried out in waste land and dump management.
8g	Survival rate	Not specified.	65%	Survival rate is 65%.
8h	Water sprinkling on roads to control airborne dust	Water sprinkler	Water sprinkler are used to control air borne dust.	Water sprinkler are used to control air borne dust.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	2500 nos proposed for afforestation during the year 2018-19.	4000 nos plantation carried out in waste land and dump management. Aesthetic beauty in and around mined area is maintained by plantation	Environment protective measures are carried out as per the proposals.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	As per rule 45 of MCDR, 2017	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 submitted for the year 2018-19.	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.	(i) Covered under current Workings 44.486 ha (ii) Used for waste disposal 7.039 ha (iii) Occupied by plant, buildings, residential, welfare buildings & roads 3.220 ha (iv) Other Purpose (Mineral Storage, Green belt 8.530 ha	Found to be in order.	Found to be in order.
9d	Scrutiny of Annual return on afforestation	4000 nos	4000 nos of saplings.	4000 nos of saplings.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	14 t	14 t	found to be in order.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	closing stock of ROM : Nil (a) Below 25% Mn 14.000 t (b) 25% to below 35% Mn 3265.920 t (c) 35% to below 46% Mn 1101.025 t	Found to be in order.	Found to be in order.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex mine price; Below 25% Mn: Rs 2434.00 25% to below 35% Mn: Rs 10698.74 35% to below 46% Mn: Rs 17312.53	Ex mine price; Below 25% Mn: Rs 2434.00 25% to below 35% Mn: Rs 10698.74 35% to below 46% Mn: Rs 17312.53	Ex mine price; Below 25% Mn: Rs 2434.00 25% to below 35% Mn: Rs 10698.74 35% to below 46% Mn: Rs 17312.53

9h	Scrutiny of Annual return on fixed assets	Rs. 1067300	Rs. 1067300	Rs. 1067300
9k	Scrutiny of Annual return on mining machineries	BACK HOE 0.900 CUM 1 No. BLAST HOST DRILL 110.000 MM 1 No. JEEP/TRACTOR 45.000 HP 1 No. DUMPER 20.000 TONNE 3 nos.	BACK HOE 0.900 CUM 1 No. BLAST HOST DRILL 110.000 MM 1 No. JEEP/TRACTOR 45.000 HP 1 No. DUMPER 20.000 TONNE 3 nos.	Found to be in order.

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