

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON-BXT/SNG/MCDR-2/BBS

Mine code : 30ORI13023

- (i) Name of the Inspecting : **S010**) **SHRI G.C. SETHI**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri S.K.Garnaik, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 03/10/2018
- (v) Prev.inspection date : 09/01/2018

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **SAN INDPUR**
- (b) **Registration NO.** : **IBM/4585/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : SUNDARGARH
- Village : SAN INDUPUR
- Taluka : BONAI
- Post office : PATAMUNDA
- Pin Code :
- FAX No. : 06767-276161
- E-mail : rungtas@rungtamines.com
- Phone : 09437077202
- (f) Police Station : Koira
- (g) First opening date : 01/08/1989
- (h) Weekly day of rest : SAT
2. Address for : SANINDPUR IRON &BUXITE MINES
correspondance VILL-SAINDPUR.PO-PATMUNDA
DIST-SUNDERGARH
3. (a) Lease Number : ORI0147
- (b) Lease area : 147.1
- (c) Period of lease : 50
- (d) Date of Expiry : 05/09/2035
4. Mineral worked : BAUXITE Associated
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 : Laxkhan Saw,Full Time
 Qualification : AMIE (Mining)
 Appointment/ : 14/04/2014
 Termination date

Geologist

Name : D.K.Naik,Full Time
 Qualification : MSc (Geology)
 Appointment/ : 01/11/2015
 Termination date

Manager

Name : S K GARNAIK
 Qualification : AMIE MINING, 1ST CLASS CERTIFICATE OF CC
 Appointment/ : 17/11/2008
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	09/06/2003
		Renewal under rule 24 MCR1960	14/03/2006
		Modif.of approved Mining Plan	25/02/2010
		Mining Scheme rule 12 MCDR1988	28/05/2010
		Modif.approved Mining Scheme	31/07/2013
		FMCP under 23C(1)	20/01/2015
		Mining Scheme rule 12 MCDR1988	26/02/2015
		MP modif under 17(3) MCR 2016	27/12/2016
		MP modif under 17(3) MCR 2016	18/07/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	As per approved document dated 27/12/2016, a total of 14 BH have been proposed during 2017-18.	A total of 14 BH have been drilled/completed during 2017-18.	NIL.
1b	Exploration over lease area for geological axis 1 or 2	As per approved document dated 27/12/2016 a total of 39 boreholes have been proposed from 2017-18 and 2019-20 to explore lease area under G1/G2 level of exploration.	A total of 14 boreholes have been drilled in 2017-18 and as on the date of inspection 07 BH have been completed for the year 2018-19.	NIL.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Exploration agency was Geotech India(P) Ltd.	Exploration agency was Geotech India(P) Ltd.	NIL.
1d	Balance area to be explored to bring Geological axis in 1 or 2	As per approved document dated 27/12/2016 an area of 58.363 ha was to be explored.	As per approved document dated 18/07/2018, an area of 52.354 Ha to be explored under G1/G2 level of exploration. Hence an area of 6009 Ha has been explored under G1/G2 level of exploration.	NIL.

1e	Balance reserve as on 01/04/20	As per approved document dated 27/12/2016 the position of reserve and resource as on 01/11/2016 was: For Iron Ore-Reserve-35.39 mT Resource-11.87 mT For Bauxite Ore: Reserve: NIL and Resource: 1.72 mT	As per approved document dated 18/07/2018 the position of reserve and resource as on 01/06/2018 was: For Iron Ore-Reserve-54.99 mT Resource-10.17 mT For Bauxite Ore: Reserve: NIL and Resource: 1.72 mT	mT Stands for million tonnes.
1f	General remarks of inspecting officers on geology, exploration etc	A total of 39 boreholes have been proposed from 2017-18 and 2019-20 to explore lease area under G1/G2 level of exploration.	A total of 14 boreholes have been drilled in 2017-18 and as on the date of inspection 07 BH have been completed for the year 2018-19.	NIL.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Development has been proposed between grids N315-977/W485-E489.	The work of development for the year 2017-18 has been carried out within the approved limits.	NIL.

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches have been proposed in waste and Mineral. No topsoil in the area proposed for excavation in 2017-18.	Separate benches have been maintained in overburden and in ore zone.	NIL.
2c	Stripping ratio or ore to OB ratio	1:0.045 CuM/Tonnes	1:0.05 CuM/Tonnes	NIL.
2d	Quantity of topsoil generation in m3	Not applicable.	Not applicable.	NIL.
2e	Quantity of overburden generation in m3	317460 CuM	144774.6 CuM	NIL.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Development has been proposed between grids N315-977/W485-E489.	The work of development for the year 2017-18 has been carried out within the approved limits.	NIL.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Single pit has been proposed for the production namely C-Top Quarry.	Production has been carried out as per proposal.	NIL.
3b	Quantity of ROM mineral production proposed	7.0 mT	2.84 mT	mT stands for million tonnes. Production was less due to lack of market demand and not having EC of enhanced production proposal i.e. 7.0 mT.
3c	Recovery of sailable/usable mineral from ROM production	6.3 mT	2.84 mT	Less production achieved during 2017-18.

3d	Quantity of mineral reject generation	0.7 mT	NIL.	NIL.
3e	Grade of mineral rejects generation and threshold value declared.	Mineral Reject Grade proposed between 45-55% Fe.	No Mineral reject has been generated during 2017-18.	NIL.
3f	Quantity of sub grade mineral generation.	0.7 mT	NIL.	NIL.
3g	Grade of sub grade mineral generation	Mineral Reject Grade proposed between 45-55% Fe.	No sub-grade has been generated during 2017-18.	NIL.
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanical.	Mechanical.	NIL.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Two sets of wet processing plant have been proposed to install in the lease area.	One set of wet processing plant has been install in the lease area.	NIL.
3j	Provision of drilling and blasting in mineral benches	Blast holes of 110 mm dia have been proposed. Deep hole drilling & blasting with use of HEMMs. Controlled blasting with NONEL system of Initiation has been proposed for blasting.	Drilling and blasting has been carried out as per the proposal.	NIL.

3k	Provision of mining machineries in mineral benches	Excavator, Dozer, Wagon Drill, Compressor, Rock breaker, Tripper, Crushing and Screening unit, Water tanker, Generator, wet screening plant, weigh bridge, DG set etc.	Machineries have been deployed as per proposal.	NIL.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height of benches has been proposed 6 to 9 m.	The height of benches has been maintained as per the proposal.	NIL.
3m	Total area covered under excavation/pits	As per approved document dated 27/12/2016 an area of 30.76 Ha been proposed under excavation/pits at the end of the plan period.	An area of around 29.23 Ha has been covered under pits as on 01/04/218.	As per AR 2017-18.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.045 CuM/Tonnes	1:0.05 CuM/Tonnes	NIL.
3o	Total area put in use under different heads at the end of year	As per approved document dated 27/12/2016, total area put in use under different heads is 77.59 Ha at the end of the plan period.	Total of around 69.754 Ha area has been degraded under different heads as on 01/04/2018.	As per AR 2017-18.

3p	Production of ROM mineral during the last five year period as applicable	2013-14:3.85 mT 2014-15:4.50 mT 2015-16:4.50 mT 2016-17:4.50 mT 2017-18:7.00 mT	2013-14:2.63 mT 2014-15:2.34 mT 2015-16:2.60 mT 2016-17:2.56 mT 2017-18:2.84 mT	mT stands for million tonnes. Production was less due to lack of market demand and not having EC of enhanced production proposal i.e. 7.0 mT.
3q	General remarks of inspecting officers on method of mining etc.		Fully mechanized method of mining is in practice to win Iron Ore.	NIL.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping of waste and Mineral reject has been proposed. No top soil in the area proposed for mining in 2017-18.	Waste and Mineral reject has been kept separately.	NIL.
4b	Location of topsoil, OB and mineral reject dumps	Dump-B is the proposed dumping site for OB.	Dumping of waste has been observed as per proposal.	NIL.
4c	Number of dumps within lease area and outside of lease area	No of dumps within lease area three. No dump outside of the lease area.	No waste dumping outside of the lease has been observed. Three dumps within lease area.	NIL.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Proposed dump during the year 2017-18 is outside of UPL. .	Waste dumping has been observed outside of UPL.	NIL.
4e	Number of active and alive dumps.	One (Dump B)	One (Dump B)	NIL.

4f	Number of dead dumps.	Nil	Not applicable	NIL.
4g	Number of dumps established.	One	One	NIL.
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal of retaining wal and garland drain during 2017-18.	A retaining wall and garland drain of 130 and 330 mts respectively has been constructed.	NIL.
4i	Length of Retaining wall or garland drain all along dumps	No proposal of retaining wal and garland drain during 2017-18.	A retaining wall and garland drain of 130 and 330 mts respectively has been constructed.	NIL.
4j	Number of settling ponds	None	Nil	NIL.
4k	Specific comments of inspecting officer on waste dump management		Top soil has not been generated during the year. Waste and Mineral reject has been kept separately. Dumping of waste has been observed as per proposal.	NIL.

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.	No area is matured for backfilling.	No backfilling done during 2017-18.	NIL.
5b	Area under backfilling of mined out area	Not applicable.	Not applicable	NIL.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not applicable.	No top soil has been generated during the year 2017-18.	NIL.

5d	Total area fully reclaimed and rehabilitated	No area is matured for reclamation 7 rehabilitation	Not applicable.	NIL.
5e	General remarks of inspecting officers on backfilling and reclamation etc.		No mined out area is matured for backfilling.	NIL.

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 rule 26(2) of MCDR, 2017, PMCP report to be submitted for previous year by 1st July	Annual report of PMCP has been submitted for the year 2017-18.	NIL.
6b	Area available for rehabilitation (ha) .	A total of 0.15 Ha area has been proposed for Safety Zone Plantation and waste dump plantation during 2017-18.	A total of around 0.22 hectare area of Safety Zone and waste dump has been planted.	NIL.
6c	afforestation done (ha).	A total of 0.15 Ha area has been proposed for Safety Zone Plantation and waste dump plantation during 2017-18.	A total of around 0.22 hectare area of Safety Zone and waste dump has been planted.	NIL.

6d	No. of saplings planted during the year	As per approved PMCP a total of 5000 Numbers of sapling has been proposed to plant during 2017-18.	17000 number of plant within lease has been planted during 2017-18.	NIL.
6e	Cumulative no .of plants	As per approved PMCP cumulative numbers of plants are 155924.	As reported during the site inspection cumulative numbers of plants are 202222.	NIL.
6f	Any other method of rehabilitation	Not applicable.	Not applicable.	NIL.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Not applicable.	Not applicable	NIL.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not applicable.	Not applicable	NIL.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Not applicable.	Not applicable	NIL.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not applicable	Not applicable	NIL.

6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not applicable	Not applicable	NIL.
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not applicable	Not applicable	NIL.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No waste land.	Not applicable	NIL.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not applicable	Not applicable	NIL.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Ambient air ,Water quality , Noise level survey & Ground Vibration to be measured Quarterly.	Environmental monitoring was carried out in Core and buffer zone for the reporting year.	NIL.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		17000 number of plant within lease has been planted during 2017-18.	NIL.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting within lease area has been proposed.	Grade wise sorting has been observed within lease area.	NIL.

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical sorting of Iron Ore by Crushing and screening.	Mechanical method has been adopted by Crushing and screening at Mines.	NIL.
7c	Different grade of mineral sorted out at mines.	Iron Ore :- 45- 55%Fe and more than 55% Fe.	Iron Ore of Grades 45- 55%Fe, 55-58%Fe, 58- 60%Fe, 60-62%Fe, 62- 65%Fe, 65% Fe and above has been sorted out in the Mines	NIL.
7d	Any beneficiation process at mines .	Two sets of wet beneficiation plants of 250tph throughput capacity each (total 500tph capacity) are proposed to install within the ML area. There will be three products will be generated from this plant viz. -20+8mm, -8+2mm and - 1mm fines. Tailings of (-) 75microns will be thickened in Hi-rate Thickeners and the thickened sludge will be further dewatered in Filter Press.	One set of wet beneficiation plant of 250 tph has been commissioned	NIL.

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Sub-grade material generated during excavation and processing of ROM, has been proposed to stack separately for future use.	Sub-grade material generated during excavation and processing of ROM has been stacked separately for future use.	NIL.
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No top soil generation as no fresh area is proposed for excavation during 2017-18.	No top soil generated during the year 2017-18.	NIL.
8b	Concurrent use or storage of topsoil	Not applicable.	Not applicable	NIL.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumps have been proposed for waste dumping and mineral reject.	Separate dumps have been maintained for waste and mineral reject/sub-grade material.	NIL.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	The overburden, waste rock, rejects and fines generated is proposed for separate dumping.	The overburden, waste rock, rejects and fines generated are dupmed separately.	NIL.

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Phased restoration is not applicable.	Nil	NIL.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	As per approved PMCP a total of 5000 Numbers of sapling has been proposed to plant during 2017-18.	Total 17000 nos of plantation has been done during 2017-18.	NIL.
8g	Survival rate	83%	83%	NIL.
8h	Water sprinkling on roads to control airborne dust	Six nos of water tanker are proposed for dust suppression on haul road. Capacity-12 & 20 KL	3.25 km length of fixed water sprinklers and Three nos of water tanker of 18 KL and Three nos of water tanker of 12 KL has already been deployed to control dust on haul road.	NIL.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		Plantation has been carried out in Safety Zone and Dump to improve aesthetic beauty in and around lease area.	NIL.

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 , monthly and annual returns to be submitted.	Monthly and annual returns are being submitted regularly.	Scrutiny of MRs and AR 2017-18.

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information has been furnished about Mining Engineer, Geologist, and Manager.	Mining engineer, Mines Manager and geologist has been appointed at the mine.	Scrutiny of AR 2017-18.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Mine working: 29.23 Ha. , waste dump: 14.08 Ha. , Infrastructure with road: 6.918 Ha. , Mineral separation plant:19.526 Ha	The land details furnished in AR seems to be in order.	Scrutiny of AR 2017-18.
9d	Scrutiny of Annual return on afforestation	17000 plants within lease area	Found to be in order.	Scrutiny of AR 2017-18.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No mineral reject generation during 2017-18.	No mineral reject generation during 2017-18.	Scrutiny of AR 2017-18.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Iron Ore ROM Stock - NIL. Total lump stock: 50368.129 MT and Total fines stock : 1152087.117 MT	Found to be in order.	Scrutiny of AR 2017-18.

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Iron Ore (Lumps):- 60-62% Fe: Rs. 2444.21, 62-65% Fe: Rs. 3292.84, Iron Ore (Fines):- 55-58%Fe: Rs.2412.63, 60-62% Fe: Rs. 808.42, 62-65% Fe: Rs. 1235.19. Cost of Production - Rs. 723.21 Per tonne.	The information furnished about the ex-mine price and cost of production under the Annual return for the year 2017-2018 seems to be in order	Scrutiny of AR 2017-18.
9h	Scrutiny of Annual return on fixed assets	The value of fixed assets furnished is Rs 1478002.38.00	Rs 1478002.38.00	Scrutiny of AR 2017-18.
9k	Scrutiny of Annual return on mining machineries	Excavator, Dozer, Mator Grader, Loader, Dumper, wheel loader, Tipper, water tanker, blast hole drill, crane, crusher plant, screen plant, compressor etc.	Information furnished appears to be correct.	Scrutiny of AR 2017-18.

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 34(1)	25/10/2018	04/12/2018				

Date :

(SHRI G.C. SETHI)

Indian Bureau of Mines