

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/SNG/MCDR-13/BBS

Mine code : 30ORI13025

- (i) Name of the Inspecting : **SRM**) **SHRI SUDIP RANJAN MAZUMDAR**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Shri D.K.Saha, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 26/02/2020
- (v) Prev.inspection date : 29/12/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **TANTRA**
- (b) **Registration NO.** : **IBM/6694/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : SUNDARGARH
- Village : TANTRA
- Taluka : BONAI
- Post office : TENSA
- Pin Code : 770042
- FAX No. : 06625-236305
- E-mail : onkargroup@hotmail.com
- Phone : 06625-236305
- (f) Police Station : Koira
- (g) First opening date : 01/09/1986
- (h) Weekly day of rest : SUN
2. Address for : AT/PO-KOIRA
correspondance DIST- SUNDERGARH
ORISSA-770042
3. (a) Lease Number : ORI0132
- (b) Lease area : 72.56
- (c) Period of lease : 20
- (d) Date of Expiry : 21/11/2005
4. Mineral worked : IRON ORE Main
BAUXITE Associated

5. Name and Address of the

Lessee : M/S KORP RESOURCES PVT LTD
 161, RABINDRA SARANI, PS-
 BURRA BAZAR KOLKATTA
 KOLKATA WEST BENGAL
 Phone:03322683832
 FAX :03322683832

Owner : SHRI PRAHLAD ROY GOENKA
 161, RABINDRA SARANI, PS-
 BURRA BAZAR KOLKATA KOLKATA
 WEST BENGAL
 Phone: 9831094640
 FAX : 03322683832

Mining Engineer

Name : SHRI RUDRA MOHAN NAYAK, Full Time
 Qualification : B E MINING (AMIE)
 Appointment/ : 01/03/2019
 Termination date

Geologist

Name : SHRI P K PATHAK, Full Time
 Qualification : MSC (GEOLOGY)
 Appointment/ : 05/07/2012
 Termination date

Manager

Name : SHRI CHANDRA SEKHAR MISHRA
 Qualification : MSC GEOLOGY (FIRST CLASS MINES MANAGER C
 Appointment/ : 15/03/2016
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	29/03/2004
Plan/Scheme of Mining		PMCP under 23B(2) for Existing	22/10/2007
		Mining Scheme rule 12 MCDR1988	11/12/2008
		Modif. approved Mining Scheme	03/03/2010
		Mining Scheme rule 12 MCDR1988	19/04/2013
		MP review under 17(1) MCR 2016	18/05/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	In 2018-19, 15 numbers of boreholes have been proposed to be drilled.	In 2018-19, the proposed exploration have not been carried out.	Violation has been issued during previous inspection dated 29.12.2019
1b	Exploration over lease area for geological axis 1 or 2	In 2018-19, 15 numbers of boreholes have been proposed to be drilled.	In 2018-19, the proposed exploration have not been carried out.	Violation has been issued during previous inspection dated 29.12.2019
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not Specified	In 2018-19, the proposed exploration have not been carried out.	Violation has been issued during previous inspection dated 29.12.2019
1d	Balance area to be explored to bring Geological axis in 1 or 2	An area of 15.042 ha has been explored under G3 and found to be non-mineralized. In 2018-19, exploration has been proposed over potentially non-mineralized area	In 2018-19, the proposed exploration have not been carried out.	Violation has been issued during previous inspection dated 29.12.2019

1e	Balance reserve as on 01/04/20	As per the review of mining plan approved dated 18.05.2018, the reserve is 3.918 million tones and remaining resources is 1.01 million tones. Total Reserve and Resource is 4.928 million tones.	Updated reserve and resource as on 01.04.2019 is as follows: Reserves is 3.799 million tones and remaining resources is 1.01 million tones. Total Reserve and Resource is 4.809 million tones.	Updated reserve and resource as on 01.04.2019 is as follows: Reserves is 3.799 million tones and remaining resources is 1.01 million tones. Total Reserve and Resource is 4.809 million tones.
1f	General remarks of inspecting officers on geology, exploration etc	In 2018-19, 15 numbers of boreholes have been proposed to be drilled.	In 2018-19, the proposed exploration have not been carried out.	Violation has been issued during previous inspection dated 29.12.2019

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	In 2018-19, it is proposed to develop the quarry in the North East side.	In 2018-19, development done in the quarry in the North East side.	In 2018-19, development done in the quarry in the North East side.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	There was no proposal for top soil generation. Separate benches in overburden and mineral proposed.	There was no generation of top soil. Separate benches in overburden and mineral maintained.	There was no generation of top soil. Separate benches in overburden and mineral maintained.
2c	Stripping ratio or ore to OB ratio	1:0.04 t/m3	1:0.02 t/m3	Nil

2d	Quantity of topsoil generation in m3	There was no proposal for top soil generation.	There was no generation of top soil.	There was no generation of top soil.
2e	Quantity of overburden generation in m3	In 2018-19, there was no proposal for OB generation. However, there was proposal for 8662.19 cum of intercalated waste generation.	In 2018-19, the waste generation was 1795 cum. Less waste generated as the ROM propoduction was less than proposed. hence, susbsequent development was less.	In 2018-19, the waste generation was 1795 cum. Less waste generated as the ROM propoduction was less than proposed. hence, susbsequent development was less.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	In 2018-19, it is proposed to develop the quarry in the North East side.	In 2018-19, development done in the quarry in the North East side.	In 2018-19, development done in the quarry in the North East side.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One Quarry	One Quarry	Nil
3b	Quantity of ROM mineral production proposed	ROM production proposal 86621.94 m3 which consist of 90% iron ore and 10% intercalated waste. Total iron ore proposal was 239942.77 tones.	1,18,700 Mt.	ROM production was restricted within the EC limit of 120000 tones of iron ore per annum

3c	Recovery of sailable/usable mineral from ROM production	1,42,926.20 MT	Nil	Less recovery of saleable ore was due to restriction of ROM production within EC limit and further out of 118700 tones of ROM production, only 77200 tones of ROM has been processed. Remaining ROM produced during the year has been reported in the closing stock of ROM.
3d	Quantity of mineral reject generation	97016.57 tones	77200 tones	Less recovery of mineral reject was due to restriction of ROM production within EC limit and further out of 118700 tones of ROM production, only 77200 tones of ROM has been processed. Remaining ROM produced during the year has been reported in the closing stock of ROM. Entire ROM processed is reported in mineral reject.
3e	Grade of mineral rejects generation and threshold value declared.	45 to - 58% Fe	45 to -58% Fe	Nil

3f	Quantity of sub grade mineral generation.	97016.57 tones	77200 tones	Less recovery of subgrade was due to restriction of ROM production within EC limit and further out of 118700 tones of ROM production, only 77200 tones of ROM has been processed. Remaining ROM produced during the year has been reported in the closing stock of ROM. Entire ROM processed is reported in subgrade ore.
3g	Grade of sub grade mineral generation	45 to -58% Fe	45 to -58% Fe	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed during the year 2018-19	Nil	Nil

3j	Provision of drilling and blasting in mineral benches	Massive hard iron ore will be loosened through drilling & blasting. Drilling will be carried out by 115mm dia crawler drill and blasting will be carried out with the help of explosive boosters and ANFO and class-VI explosives	Drilling & blasting have been carried as per requirement as proposed	Drilling & blasting have been carried as per requirement as proposed
3k	Provision of mining machineries in mineral benches	Excavator and dumper combination have been proposed for mining in mineral benches.	Excavator and dumper combination have been deployed for mining in mineral benches.	Excavator and dumper combination have been deployed for mining in mineral benches.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height of the benches proposed is 6m	Height of benches in overburden and mineral is suitable for method of mining proposed in mining plan. Bench height is maintained.	Height of benches in overburden and mineral is suitable for method of mining proposed in mining plan. Bench height is maintained.
3m	Total area covered under excavation/pits	Area under mining at the end of plan period will be 10.8 Ha	Area under mining at the end of 2018-19 is 7.85 Ha as reported in annual return for 2018-19	Area under mining at the end of 2018-19 is 7.85 Ha as reported in annual return for 2018-19
3n	Ore to OB ratio for the pit/mine during the year.	1:0.04 t/m ³	1:0.02 t/m ³	Nil
3o	Total area put in use under different heads at the end of year	Total area put in use under different heads at the end of plan period will be 29.486 Ha	Total area put in use under different heads at the end of 2018-19 is 22.195	Total area put in use under different heads at the end of 2018-19 is 22.195

3p	Production of ROM mineral during the last five year period as applicable	Year wise Production proposal 2014-15: 600000 tones 2015-16: 600000 tones 2016-17: 600000 tones 2017-18: 600000 tones In 2018-19, ROM production proposal 86621.94 m3 which consist of 90% iron ore and 10% intercalated waste. Total iron ore proposal was 239942.77 tones.	Year wise ROM production 2014-15: 114000 tones 2015-16: 115600 tones 2016-17: 119300 tones 2017-18: 106200 tones 2018-19: 118700 tones	Year wise ROM production 2014-15: 114000 tones 2015-16: 115600 tones 2016-17: 119300 tones 2017-18: 106200 tones 2018-19: 118700 tones
3q	General remarks of inspecting officers on method of mining etc.	Opencast method of mining proposed	Production is carried out by opencast mining method as proposed.	Production is carried out by opencast mining method as proposed.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	In 2018-19, there was no proposal for top soil generation. Separate dumping of OB and mineral reject proposed	In 2018-19, there was no generation of top soil generation. Separate dump of OB and mineral reject maintained.	In 2018-19, there was no generation of top soil generation. Separate dump of OB and mineral reject maintained.

4b	Location of topsoil, OB and mineral reject dumps	In 2018-19, there was no proposal for top soil generation. The waste material is planned to be dumped in the proposed dump site in the west central part of lease area. Mineral reject/subgrade to be stacked in the existing subgrade stack	In 2018-19, there was no generation of top soil generation. Waste and mineral reject have been dumped separately as proposed.	In 2018-19, there was no generation of top soil generation. Waste and mineral reject have been dumped separately as proposed.
4c	Number of dumps within lease area and outside of lease area	One dump	One dump	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Beyond UPL	Beyond UPL	Nil
4e	Number of active and alive dumps.	One dump	One dump	Nil
4f	Number of dead dumps.	Nil	Nil	Nil
4g	Number of dumps established.	Nil	Nil	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	In 2018-19, 175 m of retaining wall and 175 m of garland drain have been proposed to be constructed	In 2018-19, 175 m of retaining wall and 175 m of garland drain have been constructed	In 2018-19, 175 m of retaining wall and 175 m of garland drain have been constructed
4i	Length of Retaining wall or garland drain all along dumps	In 2018-19, 175 m of retaining wall and 175 m of garland drain have been proposed to be constructed	In 2018-19, 175 m of retaining wall and 175 m of garland drain have been constructed	In 2018-19, 175 m of retaining wall and 175 m of garland drain have been constructed

4j	Number of settling ponds	No fresh proposal for construction of settling ponds	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management	In 2018-19, there was no proposal for top soil generation. The waste material is planned to be dumped in the proposed dump site in the west central part of lease area. Mineral reject/subgrade to be stacked in the existing subgrade stack	In 2018-19, there was no generation of top soil generation. Waste and mineral reject have been dumped separately as proposed.	In 2018-19, there was no generation of top soil generation. Waste and mineral reject have been dumped separately as proposed.

Solid Waste Management - Backfilling:

Sl.No.	Item	Proposals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Not Proposed	Nil	Nil
5b	Area under backfilling of mined out area	Not Proposed	Nil	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not Proposed	Nil	Nil
5d	Total area fully reclaimed and rehabilitated	Not Proposed	Nil	Nil

5e	General remarks of inspecting officers on backfilling and reclamation etc.	There is no proposal for reclamation and rehabilitation	The mine is not matured for reclamation and rehabilitation	The mine is not matured for reclamation and rehabilitation
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Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Annual report on PMCP to be submitted as per Rule 26 (2) of MCDR, 2017	Annual report on PMCP for the year 2018-19 have been submitted	Annual report on PMCP for the year 2018-19 have been submitted
6b	Area available for rehabilitation (ha) .	0.20 Ha.	0.20 Ha.	Nil
6c	afforestation done (ha).	0.20 Ha.	0.20 Ha.	Nil
6d	No. of saplings planted during the year	500 nos of saplings proposed for plantation	7800 nos of saplings planted within lease area	7800 nos of saplings planted within lease area
6e	Cumulative no .of plants	Not Specified	31570 nos of saplings	Nil
6f	Any other method of rehabilitation	Not proposed	nil	Nil
6g	Cost incurred on watch and care during the year	Not Specified	Rs 2,12,000.00	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Not proposed	Nil	Nil

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not proposed	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	Not proposed	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not proposed	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Not proposed	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	500 nos of saplings proposed for plantation	7800 nos of saplings planted within lease area	7800 nos of saplings planted within lease area
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	0.20 Ha.	0.20 Ha.	Nil
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	Plantation	Plantation	Nil

6p	Compliance of environmental monitoring (core zone and buffer zone)	Monitoring of environmental parameters proposed	Monitoring of environmental parameters done as proposed	Monitoring of environmental parameters done as proposed
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Annual report on PMCP to be submitted as per Rule 26 (2) of MCDR, 2017	Annual report on PMCP for the year 2018-19 have been submitted. PMCP proposals have been implemented.	Annual report on PMCP for the year 2018-19 have been submitted. PMCP proposals have been implemented.

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	Grade wise sorting within lease area	Grade wise sorting within lease area
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	Mechanical
7c	Different grade of mineral sorted out at mines.	45% Fe to -58% Fe and +58% Fe	45% Fe to -58% Fe	45% Fe to -58% Fe
7d	Any beneficiation process at mines .	Not Proposed during the year 2018-19	Nil	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Grade wise sorting within lease area	Grade wise sorting within lease area	Grade wise sorting within lease area

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	Not proposed	Nil	Nil
8b	Concurrent use or storage of topsoil	Not proposed	Nil	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping of OB and mineral reject proposed	Separate dump of OB and mineral reject maintained.	Separate dump of OB and mineral reject maintained.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not proposed	Nil	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not proposed	Nil	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	500 nos of saplings proposed for plantation	7800 nos of saplings planted within lease area	7800 nos of saplings planted within lease area
8g	Survival rate	Survival rate : 90%	Survival rate : 75%	Data as furnished in annual return
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on roads to control airborne dust proposed	Water sprinkling on roads to control airborne dust is being done	Water sprinkling on roads to control airborne dust is being done

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	500 nos of saplings proposed for plantation	7800 nos of saplings planted within lease area. Aesthetic beauty in and around mines is maintained	7800 nos of saplings planted within lease area. Aesthetic beauty in and around mines is maintained
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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly and Annual returns to be submitted as per rule 45 of MCDR 2017	Monthly returns and annual return for 2018-19 have been submitted.	Monthly returns and annual return for 2018-19 have been submitted.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information on Manager, Mining Engineer and Geologist furnished in annual return for 2018-19	Manager, Mining Engineer and Geologist have been appointed in mines.	Manager, Mining Engineer and Geologist have been appointed in mines.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Lease area (surface area) utilization at the end of the year as furnished in annual return for 2018-19. Covered under current working: 7.85 ha, Used for waste disposal: 0.131 Ha, Occupied by plant buildings, residential, welfare buildings & roads: 1.0 Ha, other purposes: 13.214 Ha	Lease area (surface area) utilization at the end of the year as furnished in annual return for 2018-19. Covered under current working: 7.85 ha, Used for waste disposal: 0.131 Ha, Occupied by plant buildings, residential, welfare buildings & roads: 1.0 Ha, other purposes: 13.214 Ha	Lease area (surface area) utilization at the end of the year as furnished in annual return for 2018-19. Covered under current working: 7.85 ha, Used for waste disposal: 0.131 Ha, Occupied by plant buildings, residential, welfare buildings & roads: 1.0 Ha, other purposes: 13.214 Ha

9d	Scrutiny of Annual return on afforestation	7800 nos of saplings planted within lease area.	7800 nos of saplings planted within lease area.	data as furnished in annual return for 2018-19
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Quantity: 77200 tones, Grade: 45 to - 58% Fe	Quantity: 77200 tones, Grade: 45 to -58% Fe	Quantity: 77200 tones, Grade: 45 to -58% Fe
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing Stock of ROM: 119000 tones	Closing Stock of ROM: 119000 tones	Closing Stock of ROM: 119000 tones
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-mine price in Rs per tonne Lump (below 55% Fe): Rs 1685.00 Lump (55% to below 58% Fe): Rs 2463.00 Fines (55% to below 58% Fe): Rs 1165.00	Ex-mine price in Rs per tonne Lump (below 55% Fe): Rs 1685.00 Lump (55% to below 58% Fe): Rs 2463.00 Fines (55% to below 58% Fe): Rs 1165.00	Ex-mine price in Rs per tonne Lump (below 55% Fe): Rs 1685.00 Lump (55% to below 58% Fe): Rs 2463.00 Fines (55% to below 58% Fe): Rs 1165.00
9h	Scrutiny of Annual return on fixed assets	Rs 153771030	Rs 153771030	Nil
9k	Scrutiny of Annual return on mining machineries	Shovel (Hydraulic) 2.0 cum capacity: 2 nos; Dumper (20 tonne capacity): 4 nos; Front end loader (2.5 cum capacity): 3 nos etc	Shovel (Hydraulic) 2.0 cum capacity: 2 nos; Dumper (20 tonne capacity): 4 nos; Front end loader (2.5 cum capacity): 3 nos etc	Shovel (Hydraulic) 2.0 cum capacity: 2 nos; Dumper (20 tonne capacity): 4 nos; Front end loader (2.5 cum capacity): 3 nos etc

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 :

(**SHRI SUDIP RANJAN MAZUMDAR**)

Indian Bureau of Mines