

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

**MCDR INSPECTION REPORT**

**Bhubaneshwar regional office**

**Mine file No :** ORI/CR/JJP/MCDR-4/BBS14/03/2K

**Mine code :** 11ORI19005

- (i) Name of the Inspecting : **RAM** ) **RAMKISHAN R**  
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri. A.K.Patra, Mines Manager  
Official with  
Designation
- (iv) Date of Inspection : 11/02/2021
- (v) Prev.inspection date : 25/02/2020

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **OSTAPAL**
- (b) **Registration NO.** : **IBM/173/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address  
State : ORISSA  
District : JAJPUR  
Village : GURUJANG  
Taluka : SUKINDA  
Post office : KALIAPANI  
Pin Code :  
FAX No. : 06784 - 251782  
E-mail : facormines@facor.in  
Phone : 06726- 268755
- (f) Police Station : Kaliapani
- (g) First opening date : 01/12/1985
- (h) Weekly day of rest : SUN
2. Address for : OATAPAL CHROMITE MINE, M/S FACOR LTD  
correspondance P.O.KALIAPANI, DIST: JAJPUR  
ORISSA-755047
3. (a) Lease Number : ORI0233
- (b) Lease area : 72.84
- (c) Period of lease : 50
- (d) Date of Expiry : 12/08/2035
4. Mineral worked : CHROMITE Main

## 5. Name and Address of the

Lessee : M/s.Ferro Alloys Corporation Limited  
Laxmi Bhawan,Kuans PO &  
Dist : Bhadrak Odisha  
BHADRAK ORISSA  
Phone:06784 - 250598  
FAX :06784 - 251782

Owner : SHRI ROHIT SARAF  
M/s Ferro Alloys  
Corporation Ltd Laxmi  
Bhawan, Kuans, Bhadrak  
Odisha-756100 BHADRAK  
ORISSA  
Phone: 06784 - 250598  
FAX : 06784 - 251782

Agent : RAJESH KUMAR SINGH  
Gurujang, Kaliapani  
Sukinda, Jajpur Odisha  
BHADRAK ORISSA  
Phone: 06784 -251312  
FAX : 06726-201009

## Mining Engineer

Name : SARASWATA NANDA,Full Time  
Qualification : B.E Mining Engineering  
Appointment/ : 01/07/2016  
Termination date

## Geologist

Name : I. RAMA RAO,Full Time  
Qualification : MSC Geology  
Appointment/ : 14/12/2009  
Termination date

## Manager

Name : AJAYA KUMAR PATRA  
Qualification : AMIE Mining Engineering, FCC  
Appointment/ : 21/08/2017  
Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	17/01/2001
Plan/Scheme of Mining	:	Renewal under rule 24 MCR1960	03/01/2005
	:	Mining Scheme rule 12 MCDR1988	25/04/2011
	:	Mining Scheme rule 12 MCDR1988	30/03/2016
	:	MP modif under 17(3) MCR 2016	11/09/2018
	:	MP review under 17(1) MCR 2016	13/01/2021

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No such specific proposal.	However 2 nos of boreholes were proposed during the year 2019-20.	
1b	Exploration over lease area for geological axis 1 or 2	2 nos of boreholes were proposed during the year 2019-20 to brought area under G1/G2.	2 nos of boreholes were drilled.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year		Not available	
1d	Balance area to be explored to bring Geological axis in 1 or 2	6 nos of boreholes were proposed during the plan period i.e. 2018-19 to 2020-21 to brought area under G1/G2.	2 nos of boreholes were drilled during the year 2019-20.	
1e	Balance reserve as on 01/04/20	As per the review mining plan approved dated 13.01.2021 the Reserve is 7.878 lakh tonnes and Remaining resources is 15.069 lakh tonnes.	As on 30.11.2020 the Reserve is 7.878 lakh tonnes and Remaining resources is 15.069 lakh tonnes.	
1f	General remarks of inspecting officers on geology, exploration etc		The Chromite ore mineralization is mainly controlled by litho-stratigraphy. The chrome ore bands are confined to the older ultramafics of dunite and peridotite.	

## Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Pit-1 is proposed for development during the year 2019-20.	Pit-1 is being developed.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No generation of top soil and seperate benches for OB and mineral are proposed	No top soil generated, seperate becnhes for OB and mineral are mainatined.	
2c	Stripping ratio or ore to OB ratio	1:3.4 t/cu.m.	1:2 t/cu.m.	due to irregular nature of ore deposit.
2d	Quantity of topsoil generation in m3	Not applicable	Nil	
2e	Quantity of overburden generation in m3	355210 cu.m. during the year 2019-20.	207662 cu.m.	due to irregular nature of ore deposit.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		the development is carried out in one single pit by opencast mining method.	

## Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	1 no.	1 no.	
3b	Quantity of ROM mineral production proposed	104656 t during the year 2019-20.	104470.253 t	
3c	Recovery of sailable/usable mineral from ROM production	58142 t of saleble ore and 46514 t of mineral reject	57624.774 t of saleble ore and 46845.479 t of mineral reject	
3d	Quantity of mineral reject generation	46514 t of mineral reject	46845.479 t of mineral reject	

3e	Grade of mineral rejects generation and threshold value declared.	+10%-40% Cr2O3	+10%-40% Cr2O3	
3f	Quantity of sub grade mineral generation.	Not applicable	Nil	
3g	Grade of sub grade mineral generation	Not applicable	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized and Manual method.	Mechanized and Manual method.	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not applicable	Nil	Already beneficiation is carried out in the mine for low grade ore.
3j	Provision of drilling and blasting in mineral benches	drilling and blasting is proposed.	carried out.	
3k	Provision of mining machineries in mineral benches	shovel and dumper combination is proposed for opencast mining excavation and material handling.	carried out.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	7-8 m is proposed	maintained.	
3m	Total area covered under excavation/pits	28.038 ha at the end of plan period i.e. 2020-21.	28.038 ha	

3n	Ore to OB ratio for the pit/mine during the year.	1:3.4 t/cu.m.	1:2 t/cu.m.
3o	Total area put in use under different heads at the end of year	total area put to use at the end of plan period is 72.843 ha	72.843 ha
3p	Production of ROM mineral during the last five year period as applicable	In lakh tonnes 2015-16: 2.00 2016-17: 1.042 2017-18: 1.071 2018-19: 1.351 2019-20: 1.046	In lakh tonnes 2015-16: 0.79 2016-17: 1.020 2017-18: 1.062 2018-19: 1.059 2019-20: 1.046
3q	General remarks of inspecting officers on method of mining etc.	production is carried out from single pit 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)	seperate dump for OB is proposed. mineral reject generated is proposed to be beneficiated.	sepearte dump for OB and is maintained. mineral reject generated is beneficiated.	
4b	Location of topsoil, OB and mineral reject dumps	North-East part of North dump	North-East part of North dump	
4c	Number of dumps within lease area and outside of lease area	one no. of dump is proposed within lease area during the year 2019-20.	one no.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Out side UPL	Out side UPL	
4e	Number of active and alive dumps.	one no.	one no.	

4f	Number of dead dumps.	Not applicable	Nil
4g	Number of dumps established.	Not applicable	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	provided.
4i	Length of Retaining wall or garland drain all along dumps	104 m	104 m
4j	Number of settling ponds	3 nos	3 nos
4k	Specific comments of inspecting officer on waste dump management		waste management is carried out as propsoed.

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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.	Area not matured for reclamation.	Nil	
5b	Area under backfilling of mined out area	Not applicable	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Area not matured for reclamation.	Nil	
5d	Total area fully reclaimed and rehabilitated	Not applicable	Nil	

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5e General remarks of inspecting officers on backfilling and reclamation etc. Area not matured for reclamation.

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Progressive Mine Closure Plan:

Sl.No.	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	PMCP report to submitted submitted before 1 st July		
6b	Area available for rehabilitation (ha) .	Not applicable	Nil	
6c	afforestation done (ha).	2.37 ha during the year 2019-20.	2.42 ha	
6d	No. of saplings planted during the year	5920 nos	6050 nos	
6e	Cumulative no .of plants		142805 nos	
6f	Any other method of rehabilitation	Not applicable	Nil	
6g	Cost incurred on watch and care during the year		Not available.	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	Not applicable	Nil	

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

6p	Compliance of environmental monitoring (core zone and buffer zone)	periodical environmental monitoring of core zone and buffer zone are proposed.	carried out.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		PMCP measures were carried out as proposed.

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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	grade-wise sorting of mineral is proposed.	grade-wise sorting of mineral is carried out.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual and Mechanical	Manual and Mechanical	
7c	Different grade of mineral sorted out at mines.	10% to -40% Cr2O3 and above +40% Cr2O3	10% to -40% Cr2O3 and above +40% Cr2O3	
7d	Any beneficiation process at mines	beneficiation is proposed.	carried out.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		grade-wise sorting of mineral is carried out.	

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#### Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	Not applicable Nil	
8b	Concurrent use or storage of topsoil	Not applicable Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No top soil & Mineral reject. OB Dump is proposed in the extended part of North dump	carried out as proposed.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not applicable Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Dump plantation is proposed.	carried out.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	5920 nos	6050 nos
8g	Survival rate		85%
8h	Water sprinkling on roads to control airborne dust	water sprinkling by mobile water sprinkler proposed.	carried out.

8i General remarks of inspecting officer on aesthetic beauty in and around mines area

aesthetic beauty in and around the mines area is maintained.

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Compliance of Rule 45:

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Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly and annual returns are to be submitted as per rule 45 of MCDR, 2017	submitted.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Graduate Mining Engineer 3, Geologist 1	found to be in order.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under current (O/C) Workings: 28.038 ha, Used for waste disposal: 24.455 ha, etc.,	fond to be in order.	
9d	Scrutiny of Annual return on afforestation	6050 nos	6050 nos	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	46845 t	46845 t	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM clsoing stock is 15716.727 t	found to be in order.	

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9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	production cost is Rs.5227.24	production cost is Rs.5227.24
9h	Scrutiny of Annual return on fixed assets	Rs.1721357000	Rs.1721357000
9k	Scrutiny of Annual return on mining machineries	BACK HOE 1.500 CUM 3, FRONT END LOADER 1.700 CUM 1, WATER TANKER 8000.000 LITRE 4 etc.,	found to be in order.

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

Violation observed		Show couse position	
Rule NO.	Issued on Compliance on	Rule NO.	Issued on Compliance on

**Date :**

(RAMKISHAN R)

Indian Bureau of Mines