

**INDIAN BUREAU OF MINES  
MINES CONTROL AND CONSERVATION OF MINERAL 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 : 25 ) SHRI IBRAHIM SARIF  
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Shri A K Pati, Mines Manager  
Official with  
Designation
- (iv) Date of Inspection : 13/03/2016
- (v) Prev.inspection date : 23/07/2015

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **OSTAPAL**
- (b) Category : A Mechanised
- (c) Type of Working : Opencast
- (d) Postal address
- State : ORISSA
- District : JAJPUR
- Village : GURUJANG
- Taluka : SUKINDA
- Post office : KALIAPANI
- Pin Code :
- FAX No. :
- E-mail :
- Phone : 06726- 268755
- (e) Police Station :
- (f) First opening date : 01/12/1985
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 : 20
- (d) Date of Expiry : 12/08/2005
4. Mineral worked : CHROMITE Main

## 5. Name and Address of the

Lessee : M/s FACOR  
 P.O. Kaliapani via J. K.  
 Road CUTTACK ORISSA  
 Phone:  
 FAX :

Owner : M/S.FACOR  
 BHANDARA MAHARASHTRA  
 Phone: 07183-20233  
 FAX : 07183-20271

## Mining Engineer

Name : Shri M K Sethy, Full Time  
 Qualification : B E ( Mining )  
 Appointment/ : 30/03/2007  
 Termination date

## Geologist

Name : I .RAMA RAO, Full Time  
 Qualification : MSC.GEOLOGIST  
 Appointment/ : 30/03/2007  
 Termination date

## Geologist

Name : M.J. RAJU, Full Time  
 Qualification : M.SC (TECH)  
 Appointment/ : 29/03/2007  
 Termination date

## Geologist

Name : D.K.MAHANTA, Full Time  
 Qualification : MSC GEOLOGY  
 Appointment/ : 30/04/2003 29/03/2007  
 Termination date

## Manager

Name : S.JENA  
 Qualification : B.E(MINING)  
 Appointment/ : 17/12/2000  
 Termination date

## Manager

Name : A.K.PATI  
 Qualification : DIPLOMA IN MINING  
 Appointment/ : 18/12/2000  
 Termination date

6. Date of approval of Mining :  
 Plan/Scheme of Mining**PART - II : TECHNICAL DETAILS/COMMENTS****1. Details about Average employment :**

**Maximum number of persons employed on any day during the year**

Employment category	No.of employment	Av. yearly working days
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## DIRECT

Managerial	19	278
Supervisory	20	278
Others	60	278
Workers	18	278

## CONTRACT

Workers	267	278
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2. Community Development Plan (in and around the mines) : Proposed action and expenditure towards socio-economic development.

Action during the year	Expenditure in Rs. Lakhs for				Remarks
	previous year		current year		
	Proposed	Incurred	Proposed	Incurred	
<b>General</b>					
Water supply		65.59		65.59	
Housing		5.37		5.37	
Health		25.37		25.37	
<b>Sub total</b>		<b>96.33</b>		<b>96.33</b>	
<b>Infrastructure</b>					
Public transport			21.43	21.43	
<b>Sub total</b>			<b>96.33</b>	<b>21.43</b>	
<b>Recreation</b>			<b>5.09</b>	<b>5.09</b>	
<b>Employment</b>			<b>306.85</b>	<b>306.85</b>	
<b>Environment management</b>			<b>11.31</b>	<b>11.31</b>	
<b>Others</b>			<b>24.28</b>	<b>24.28</b>	
<b>Total</b>			<b>465.29</b>	<b>465.29</b>	

3. Status of compliance of MCDR, 1988, including therewith the rectification of the outstanding violation of rules.

There was no outstanding violations.

During inspection violation of rule 13(1), 45(7) of MCDR 1988 was pointed out on the spot to the party.

4. A note on the justification in case of suspension of mining operation under rule 13(2) or prohibition of deployment of any person under rule 56 of MCDR, 1988, if recommended.

Not Recommended

## 5. Scientific Mining

Items	Proposal	Actual work done	Remarks
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**A. Exploration (Rule 13)**

a.Type of prospecting : 4 Nos. of bore and exploration i.e. holes, 140 Mtrs. pitting, drilling  
7 Nos. of bore holes, 242 Mtrs.

b.Total area covered : 6 Ha  
6Ha

**B. Working (Rule 13)**

a.Number and size of :  
each pit (LxWxH) 568.14m x 505.33 m x 96.54 m

b.Bench : Length regular  
size(LxWxH)length can Height 6 Mtrs.  
be defined as Width 10.4Mtrs.  
regular/irregular Width 10.4Mtrs.

c.Ore to waste ratio : 1:2.4  
pit wise if possible 1:2.4  
otherwise for mine

d.Total area covered :  
under excavation/pits 26.952 Hect.

**C. Waste disposal (Rule 13)**

a.Location of dumps : South Dump  
South Dump

e.Yearly generation : 4.8 Lac M3  
of waste quantity. 4.30 Lac M3

b.Method of dumping : Advancing  
whether Advancing  
advancing/retreat

c.Total area covered : 23.85 Ha  
under waste dump. 23.85 Ha

d.No.and size of each :  
waste dump with No of North dump (dead), area-  
steps/lift/bench 16.78 Ha, Height- 73.27  
m, 5 terraces  
South Dump (active),  
area 7.08 Ha, HEIGHT-  
36.41M, 3 Terraces

**D. Production**

b.Year wise : 2014-15: 200000 MT  
production of last 2015-16 : 200000  
five year. MT 20141-15 : 155018.079 MT  
2015-16 : 68572.807 MT  
(till Feb'16)

**D. Reserve**

a.Reserve position as :  
per latest MP/MS and Classification  
at the time of Code  
inspection. Quantity Grade  
Proved Mineral Reserve  
111  
1632200.000 40.96  
Probable Mineral Reserve

121 and 122  
3189100.000 40.02

RESERVE POSITION AS ON 01/04/2015

<b>CHROMITE</b>		
Category	Quantity in Tonnes	Grade
Proved	1632200	40.96
Probable	3189100	40.02
Possible		
Total	4821300	

PRODUCTION FOR THE PREVIOUS YEAR 2014 - 2015

Mineral	Production	Unit
CHROMITE	155018	TON

**6. Conservation of Mineral - both quantitative and qualitative****Beneficiation (Rule 20 and 26)**

- Efforts for improving low grade and sub grade mineral. : Low-grade ore (-40% Cr<sub>2</sub>O<sub>3</sub>) is fed to COB plant for upgradation to usable grade.
- Efforts for improving percentage of recovery of ore. : Manual workers are engaged in ore benches and other areas in pocket type deposit where the chance of ore dilution by mechanical cutting is more. Sorting & picking is also done in ore stack yard to increase the quality of the material

**Mineral Rule 15**

- Number of benches in ore and waste. : Waste-15 nos.  
Ore 2 nos

**Sub/grd mineral/fines (Rule16)**

- Separate stacking from waste : Yes
- Location of stacking. : North-Western part of lease area

**Exploration data as on 31/03/ 2015**

No. of Boreholes	No. of Pits	No. of Trenches
180		

**OVERBURDEN HANDLED DURING PREVIOUS YEAR 2014 - 2015**

Overburden/waste removed (in m <sup>3</sup> ) :	460000
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**Utilisation of Sub Grade Mineral and Mineral Rejects**

<u>Generated</u>	<u>Utilised</u>	<u>Stacked</u>	(In Ton.)

**7. Environment Management - both quantitative and qualitativ****A. Land environment**

- a. Landscape. : Undulation & dipping towards South
- b. Aesthetic environment : Mining operation & disposal of waste has been carried out as per approved Mining Plan/Scheme, Dead Benches stabilized by plantation.
- c. Soil and land use pattern : The top soil of our Mines is not fertile and most of the land is broken up. The details of land use pattern is given as below
- | Sl. No. | Description              | Area in Ha. |
|---------|--------------------------|-------------|
| 1       | Area under Mining        | 28.710      |
| 2       | Over Burden Dump         | 23.836      |
| 3       | Ore Stackyard            | 2.873       |
| 4       | COB Plant                | 3.330       |
| 5       | Tailing Pond             | 2.996       |
| 6       | Essential Infrastructure | 0.613       |
| 7       | Road                     | 1.788       |
| 8       | Drain                    | 2.242       |
| 9       | Peripheral Area          | 2.385       |
| 10      | Safety Zone              | 4.070       |
|         | Total:                   | 72.843      |
- d. Agriculture : No agriculture land inside leasehold area.
- e. Forest(flora and fauna) : There is no forest growth inside the leasehold area only afforestation has been done as approved Mining Plan/Mining Scheme.

**B Water environment.**

- a. Surface water : The Dhamsala nala is flowing South side of the lease area.  
All the surface run off is being collected at the settling pit through garland drains from where suspended solids are settled down and pumped out to ETP before discharged to outside lease area.
- c. Quality of water : Monitoring of water quality has been carried out on quarterly basis. Quality of final discharge water and bore well water is well within the prescribed limit.
- b. Ground water : Mines seepage water has been treated in our Up-Graded ETP and part of the treated water utilised for dust suppression, plantation and ore beneficiation purposes and rest part discharged to outside of lease area after treatment at ETP.

**C. Air environment**

- a. Noise : Monitoring of noise level has been carried out on quarterly basis . The noise level is within 8permissible limit.
- c. Climatic condition : Moderate.

**D. Socio economic environment**

- c. Human settlement : Some staff quarters are provided within the lease area



d. Recreational facility. : Club has been provided.

7.1 Comments on the steps taken by the lessee towards maintaining environment and monitoring of environmental parameters to ensure the qualitative improvement in the environment and ecology.

<u>Water Management</u>					
Season	Station type	Station name	Parameter	Value	
				Actual	Excess

<u>Air data for excess parameters</u>					
Season	Station name	Type of area	Parameter	Value	
				Actual	Excess

<u>PLANTATION DURING THE PREVIOUS YEAR</u>			<u>2014 - 2015</u>			Area in Hect.
Within lease area			Outside lease area			
Area	Trees planted	Survival rate	Area	Trees planted	Survival rate	
2.2	6000	78	3	10000	51	

<u>TOP SOIL MANAGEMENT</u>	
Quantity as on 31/03/2015	

8. Scrutiny of annual returns on cost of production, reserve, production, pit mouth value, stock, land use pattern and fixed assets.

(1) Cost of Operation/Ton	Rs.4677.85		
(2) Reserve			
	Classification	Code	Quantity Grade
	Proved Mineral Reserve	111	1632200.000 40.96
	Probable Mineral Reserve	121 and 122	3189100.000 40.02
(3) Production		155018.079 MT	
(4) Pit's Mouth Value	Rs.9614.16 (40% - 52% Cr2O3)		Rs.8845.31/- (below 40% Cr2O3)
(5) Stock as on 29.02.2016		80426.087 MT (Fines)	11745.518 MT (Concentrate)
(6) Land Use Pattern		-	
(i) Covered under current (O/C) workings		28.43	
(ii) Used for waste disposal			23.63
(iii) Occupied by plant, buildings, residential, welfare buildings & roads		7.73	
(iv) Used for any other purpose (specify):			
Ore Plot Sub Grade Plot Taling Point		8.88	
(v) Work done under progressive mine closure plan during the year		1.8	
(7) Fixed assets	Rs. 18.392 Crores		(Company as a whole)

**PART - III : PERFORMANCE OF MINE OWNER**

(In case of lease expiring within 2 years - as per guidelines)

**PART - IV : PROPOSALS FOR FURTHER ACTION FOR :**

Indian Bureau of Mines (any issue related to CGPB, SGPB, Assistance, Consultancy, Annual Programme and studies, etc.)

None

State Government (Illegal mining, mining dispute, infrastructure, Mineral based industry, Mineral policy, etc.)

None

The Central Government (Infrastructure, Development, Mineral policy and Legislation, Mineral based industry, etc.)

None

Date :

(SHRI IBRAHIM SARIF)

Indian Bureau of Mines