

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

**MCDR inspection REPORT**

**Bhubaneshwar regional office**

**Mine file No :** ORI/IRON/SNG/MCDR-28/BBS

**Mine code :** 30ORI13067

- (i) Name of the Inspecting : **RKR5** ) **RAJANI KANTA RAUTARAY**  
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : Shri M.B.Singh, GM(Mines)  
Official with  
Designation
- (iv) Date of Inspection : 20-NOV-21
- (v) Prev.inspection date : 06-FEB-21

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **ADAGHAT**
- (b) **Registration NO.** : **IBM/6072/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : SUNDARGARH
- Village : Adaghat
- Taluka : Koira
- Post office : Patmunda
- Pin Code : 770048
- FAX No. : 06767275631
- E-mail : neadaghatmines@gmail.com
- Phone : 06767275686
- (f) Police Station : Koira
- (g) First opening date : 04-JAN-20
- (h) Weekly day of rest : SUN
2. Address for : Adaghat Iron Ore Mine  
correspondance : M/s National Enterprisers  
Post Box No-44, Barbil, Keonjhar, Odisha-758035
3. (a) Lease Number :
- (b) Lease area :
- (c) Period of lease :
- (d) Date of Expiry :
4. Mineral worked : IRON ORE Main

## 5. Name and Address of the

Lessee : M/S NATIONAL ENTERPRISES  
 PO.BOX 44 BARBIL- 758035  
 KEONJHAR ORISSA  
 Phone:06767-275686  
 FAX :06767-275631

Owner : Shri C S Grewal  
 M/s National Enterprisers  
 Post Box No-44, Barbil,  
 Keonjhar Odisha KEONJHAR  
 ORISSA  
 Phone: 06767275686  
 FAX : 06767275631

Agent : Shri M B Singh  
 M/s National Enterprisers  
 Post Box No-44, Barbil,  
 Keonjhar Odisha KEONJHAR  
 ORISSA  
 Phone: 06767275686  
 FAX : 06767275631

## Geologist

Name : Shri S. Mahanta, Full Time  
 Qualification : MSC Geology  
 Appointment/ : 10-NOV-20  
 Termination date

## Manager

Name : M Routray  
 Qualification : Degree in Mining Engg & FCC  
 Appointment/ : 20-MAY-20  
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining : MP review under 17(1) MCR 2016 09-NOV-20  
 MP modif under 17(3) MCR 2016 31-MAR-21

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	04 Nos. of Boreholes are proposed	08 Nos. boreholes are drilled	
1b	Exploration over lease area for geological axis 1 or 2	1.40 Ha.	1.40 Ha.	G1 level exploration
1c	Exploration Agencies and Expenditure in lakh rupees during the year		M/s Asia Pacific Drilling Services, Rs. 11.83 lacs	
1d	Balance area to be explored to bring Geological axis in 1 or 2	4.144 Ha.	4.144 Ha. area has been explored under G-2 Category	
1e	Balance reserve as on 01/04/20		As per approved modified mining plan dated 31.03.2021, the reserve of the mine as on 31.01.2021 is 3.949 Million Tonnes	
1f	General remarks of inspecting officers on geology, exploration etc			The Mining operation was started on dated 04.01.2020

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	Quarry development in N326145-N3263831, E2425362-362-E2425546	N326145-N3263831, E2425362-E2425546	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Proposed	As per proposal	
2c	Stripping ratio or ore to OB ratio	1:1.150 (T/m3)	1:1.148 (T/m3)	
2d	Quantity of topsoil generation in m3	Not proposed	Nil	

2e	Quantity of overburden generation in m3	22134 cubic metre	11080 cubic metre	The Mining operation was started on dated 04.01.2020
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One	One	
3b	Quantity of ROM mineral production proposed	2020-21-300300 Tonnes	2020-21 : 299597 Tonnes	
3c	Recovery of sailable/usable mineral from ROM production	Total ROM production is considered for sailable Mineral.	Total ROM production is considered for sailable Mineral.	
3d	Quantity of mineral reject generation	65288MT	24505MT	The mineral reject has been blended with ROM to make it sailable mineral.
3e	Grade of mineral rejects generation and threshold value declared.	45-55 % Threshold value:- more than 45% Fe	45-55 % Threshold value:- more than 45% Fe	
3f	Quantity of sub grade mineral generation.	The mineral reject is considered as subgrade mineral	The mineral reject is considered as subgrade mineral	
3g	Grade of sub grade mineral generation	Below 55%Fe	Below 55%Fe	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Nor proposed	Nil	

3j	Provision of drilling and blasting in mineral benches	Drilling and blasting have been proposed in mineral benches	Drilling and blasting have been carried out as per proposal.	
3k	Provision of mining machineries in mineral benches	Excavator : 12 Nos. Rock breaker : 01 Nos. Loader : 03 Nos. Mobile crusher : 01 Nos. Drill Machine : 01 Nos. Diesel Tanker : 01 Nos.	Excavator : 09 Nos. Rock breaker : 01 Nos. Loader : 02 Nos. Mobile crusher : 01 Nos. Drill Machine : 01 Nos. Diesel Tanker : 01 Nos.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	6 m. height and 8 m. width have been proposed	height of benches has been maintained in overburden and mineral suitable for method of mining as per proposal.	
3m	Total area covered under excavation/pits	3.45 Ha.	2015 Ha.	The Mining operation was started on dated 04.01.2020
3n	Ore to OB ratio for the pit/mine during the year.	1:1.150	1:1.148	
3o	Total area put in use under different heads at the end of year	Area under mining : 1.0 Ha. Roads : 0.20 Ha. Green belt : 0.20 Ha. Mineral Storage : 1.50 Ha.	Area under mining : 1.0 Ha. Roads : 0.20 Ha. Green belt : 0.20 Ha. Mineral Storage : 1.50 Ha.	
3p	Production of ROM mineral during the last five year period as applicable	2015-16:-Nil 2016-17:-Nil 2017-18:-Nil 2018-19:-Nil 2019-20 : Nil	2015-16:-Nil 2016-17:-Nil 2017-18:-Nil 2018-19:-Nil 2019-20 : Nil	The Mining operation was started on dated 04.01.2020
3q	General remarks of inspecting officers on method of mining etc.			The Mining operation was started on dated 04.01.2020

## 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 OB & mineral reject has been proposed	Separate dumping of OB & mineral reject has been made as per proposal	
4b	Location of topsoil, OB and mineral reject dumps	OB- North-eastern of ML area N2425743-N2425870& E325760-E325903	OB- North-eastern of ML area N2425743-N2425870& E325760-E325903	
4c	Number of dumps within lease area and outside of lease area	One : within lease area	One : within lease area	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	N2425743-N2425870& E325760-E325903	N2425743-N2425870& E325760-E325903	
4e	Number of active and alive dumps.	One	One	
4f	Number of dead dumps.	Nil	Nil	
4g	Number of dumps established.	Not proposed	Nil	Not matured for stabilization
4h	Whether Retaining wall or garland drain all along dumps are there.	Proposed	As per proposal	
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall:-200 x 1.0 x 1.5 Garland Drain:-200 x 1 x 1	Retaining wall:-200 x 1.0 x 1.5 Garland Drain:-200 x 1 x 1	
4j	Number of settling ponds	Three	Two	

## 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.	Not proposed	Nil	
5b	Area under backfilling of mined out area	No proposal	Nil	

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Nil	
5d	Total area fully reclaimed and rehabilitated	No proposal	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Pit is not matured for backfilling and reclamation.

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).	Annual Report on PMCP has been proposed to submit in every year.	Annual Report on PMCP has been submitted in due time.	
6b	Area available for rehabilitation (ha) .	No proposal	Nil	
6c	afforestation done (ha) .	1.2 Ha.	1.2 Ha. area is used for plantation in safety zone	
6d	No. of saplings planted during the year	320 Nos of sapplings has been proposed to plant.	2000 Nos. of sapplings have been planted.	
6e	Cumulative no .of plants		4098 nos. of sapplings	
6f	Any other method of rehabilitation	No proposal	Nil	
6g	Cost incurred on watch and care during the year	2.5 Lakhs	3.0 Lakhs	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	No proposal	Nil	

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	No proposal	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Nil
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	No proposal	Nil
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	No proposal	Nil
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	No proposal	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly monitoring is Proposed	Quarterly monitoring has been carried out as per proposal.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		Pits and dumps are not matured for reclamation and rehabilitation as the mining operation started on 04.01.2020.

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Mineral Conservation:

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Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting is envisaged	Grade wise sorting is practised.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	
7c	Different grade of mineral sorted out at mines.	Lumps- +58%, Fines:- +50-58%	Lumps- +60%, Fines:- +50-58%	
7d	Any beneficiation process at mines	No proposal	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Grade wise sorting of the Iron Ore is practised in the lease area.

#### Environment :

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	Nil	
8b	Concurrent use or storage of topsoil	No proposal	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping has been proposed	Separate dump has been made for overburden and mineral reject	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Nil	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Not matured for reclamation
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	320 sapplings were proposed	2000 sapplings have been planted
8g	Survival rate	80%	78%
8h	Water sprinkling on roads to control airborne dust	water sprinkling was proposed	Water has been sprinkled through water tanker for dust suppression.

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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	The monthly and annual returns are to be submitted as required under rule 45 of MCDR, 2017.	The monthly and annual returns have been submitted as required under rule 45 of MCDR, 2017.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information on Mining Engineer, Geologist and Manager has been provided	information on Mining Engineer, Geologist and Manager is found correct.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Provided	Area under mining - 2.61 Ha Green Belt- 0.20 Ha Other Purposes/Roads - 0.20 Ha	
9d	Scrutiny of Annual return on afforestation	Provided	2000 Nos of sappling	

9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Details are provided	24505MT mineral reject generated during the year below 55 % Fe Grade
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Deatils are provided	299597 Tonnes ROM production during the year
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Details are given	Cost of Production : Rs. 2105/-
9h	Scrutiny of Annual return on fixed assets	Provided	Value of Fixed Assets : Rs. 10905500.00
9k	Scrutiny of Annual return on mining machineries	Details on mine machinery has been provided	Excavator - 04 no. Loader- 1 no. Dumper- 04 Drill-1 no.

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**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 :

(RAJANI KANTA RAUTARAY)

Indian Bureau of Mines