

**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 : **SKM** ) **SANJAY KUMAR MAHAPATRA**  
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 : 12/01/2023
- (v) Prev.inspection date : 20/11/2021

**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 : 04/01/2020
- (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 : 15.074 ha
- (c) Period of lease : 50 YEARS
- (d) Date of Expiry : 10.01.2067
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

## Mining Engineer

Name : SACHIN SANKAR PRADHAN,Full Time  
 Qualification : B TECH MINING  
 Appointment/ : 07/03/2022  
 Termination date

## Geologist

Name : RAJANIKANTA NAYAK,Full Time  
 Qualification : MSC GEOLOGY  
 Appointment/ : 07/09/2022  
 Termination date

## Manager

Name : shri Umasankar Rajbhar  
 Qualification :  
 Appointment/ : 04/02/2022  
 Termination date

6. Date of approval of Mining	:	MP review under 17(1) MCR 2016	09/11/2020
Plan/Scheme of Mining	:	MP modif under 17(3) MCR 2016	31/03/2021

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	DURING 2021-22 : 20 BORE HOLES PROPOSED.	14 Nos. boreholes are drilled DURING 2021-22	VIOLATION OF RULE 11(1) OF MCDR 2017 ISSUED VIDE LETTER NO . MCDR-MiFLOFE/3/2022-BBS-IBM_RO_BBS DATED 17.01.2023 FOR LACK IN EXPLORATION.
1b	Exploration over lease area for geological axis 1 or 2	PRPOSED FOR GI	During inspection it is observed that the entire potentially mineralised area under the mining lease has not been explored to G1 level.	VIOLATION OF RULE 12(4) OF MCDR 2017 ISSUED VIDE LETTER NO . MCDR-MiFLOFE/3/2022-BBS-IBM_RO_BBS DATED 17.01.2023 .
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NOT SPECIFIED.	K R K GEO INFRA SOLLUTIONS(P) LTD EXPENDITURE: 5.47 LAKH	
1d	Balance area to be explored to bring Geological axis in 1 or 2	EXPLORATIONOF ENTIRE AREA.	4.3 HA STILL TO BE EXPLORED.	During inspection it is observed that the entire potentially mineralised area under the mining lease has not been explored to G1 level. THUS VILATION OF RULE 12(4) ISSUED.
1e	Balance reserve as on 01/04/20		BALNCE RESERVE AS ON 01.04.2022: 3.17 MILLION TONNE.	

1f General remarks of inspecting officers on geology, exploration etc

During inspection it is observed that the entire potentially mineralised area under the mining lease has not been explored to G1 level. THUS VIOLATION OF RULE 12(4) OF MCDR 2017 ISSUED VIDE LETTER NO . MCDR- MiFLOFE/3/2022- BBS-IBM\_RO\_BBS DATED 17.01.2023 .

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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	ONE QUARRY IN THE WESTERN PART	TWO QUARRY. ONE IN EASTERN PART AND OTHER IN WESTERN PART.	Order of Suspension of mining operation ( Partial in the eastern part of the quarry along the section G-G') FOR Violation of provisions of rULE 11(1) of MCDR, 2017 issued vide letter no MCDR- MiFLOFE/3/2022- BBS-IBM_RO_BBS dated 17.01.2023.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Proposed.	separate benches for OB and minerals carried.	
2c	Stripping ratio or ore to OB ratio	1:1.15	1:0.23	
2d	Quantity of topsoil generation in m3	Nil	Nil	

2e Quantity of overburden generation in m3 69640 cum 56394 cum

2f General remarks of inspecting officers on development of pit w.r.t. type of deposit etc

Order of partial Suspension of mining operation ( Partial in the eastern part of the quarry along the section G-G') FOR Violation of provisions of rULE 11(1) of MCDR, 2017 issued vide letter no MCDR-MiFLOFE/3/2022-BBS-IBM\_RO\_BBS dated 17.01.2023.

#### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One	Two	Order of Suspension of mining operation ( Partial in the eastern part of the quarry along the section G-G') FOR Violation of provisions of Rule 11(1) of MCDR, 2017 issued vide letter no MCDR-MiFLOFE/3/2022-BBS-IBM_RO_BBS dated 17.01.2023.
3b	Quantity of ROM mineral production proposed	0.300323 Million Tonne	0.30019 Million tonne	
3c	Recovery of sailable/usable mineral from ROM production	78.2 %	81.43%	

3e	Grade of mineral rejects generation and threshold value declared.	65288 tonne	55732 tonne	
3f	Quantity of sub grade mineral generation.	65288 tonne	55732 tonne	
3g	Grade of sub grade mineral generation	45-55% Fe	45-55% 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.	NIL	NIL	
3j	Provision of drilling and blasting in mineral benches	Drilling and blasting in Mineral benches proposed.	Drilling and blasting in Mineral benches carried.	
3k	Provision of mining machineries in mineral benches	Excavator of 2.5 CUM capacity and Dumper of 10-25 tonne	Excavator of 2.5 CUM- 01 No Excavator of 1.2 to 1.5 CUM = 03 nos Dumper-07 Nos were in operation.	Back Hoe, Front End Loader and Dumpers were in operation.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height- 06 Meter Width:- 08 Meter	Height- 06 Meter Width:- 08 Meter	
3m	Total area covered under excavation/pits	5.4 ha	6.884 ha	Partial suspension of mining operation in the quarry in the East side of the lease issued on 17.01.2023

3n	Ore to OB ratio for the pit/mine during the year.	1:1.15	1:0.23	
3o	Total area put in use under different heads at the end of year	10.764 ha	12.174 ha	
3p	Production of ROM mineral during the last five year period as applicable	2017-18: 149400 T 2018-19: 213310 T 2019-20: 266430 T 2020-21: 319550 T 2021-22 : 300323 T	2017-18: NIL 2018-19: NIL 2019-20: 108416 T 2020-21: 144963 T 2021-22 : 300192 T	
3q	General remarks of inspecting officers on method of mining etc.		Order of Suspension of mining operation ( Partial in the eastern part of the quarry along the section G-G') FOR Violation of provisions of Rule 11(1) of MCDR, 2017 issued vide letter no MCDR-MiFL0FE/3/2022-BBS-IBM_RO_BBS dated 17.01.2023.	Order of Suspension of mining operation ( Partial in the eastern part of the quarry along the section G-G') FOR Violation of provisions of Rule 11(1) of MCDR, 2017 issued vide letter no MCDR-MiFL0FE/3/2022-BBS-IBM_RO_BBS dated 17.01.2023.As minijng opeartion carried in Eastern side of the lease without any approved proposal.

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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Seaparate Dumping of OB and MR proposed	Seaparate Dumping of OB and MR carried.	

4b	Location of topsoil, OB and mineral reject dumps	N2425869 E3252805 N2425840 E325842	Broadly as per proposal.	
4c	Number of dumps within lease area and outside of lease area	Within lease area -01 Out side lease Area- Nil	As per proposal.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Out side of ultimate Pit Limit	Out side of ultimate Pit Limit as proposed.	
4e	Number of active and alive dumps.	One	One	
4f	Number of dead dumps.	NIL	NIL	
4g	Number of dumps established.	NIL	NIL	
4h	Whether Retaining wall or garland drain all along dumps are there.	Proposed	Carried as proposed.	
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall-200 Meter Garland Drain 200 Meter	Retaining wall-aprox 190 Meter Garland Drain approx 200 Meter	
4j	Number of settling ponds	02	02	
4k	Specific comments of inspecting officer on waste dump management		The retaining wall around the waste dump carried.	The retaining wall and garland drain around the waste dump constructed as proposed.

#### 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.	Nil	NIL as not matured.	



5b	Area under backfilling of mined out area	NIL	area not matured for back filling.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Use for plantaion.	Used for plantation.	
5d	Total area fully reclaimed and rehabilitated	Nil	area not matured for reclamation and rehabilitation.	Area not matured for reclamation and rehabilitation.
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Area not matured for backfilling, reclamation and rehabilitation.

#### 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).	To be submitted on 1st july	Not submitted.	Violation issued vide letter dated 17.01.2023 for non submission of annual report on PMCP.
6b	Area available for rehabilitation (ha) .	NIL	Area not matured.	
6c	afforestation done (ha).	Not specified.	0.9 ha	
6d	No. of saplings planted during the year	Not specified.	1400 plantation made.	
6e	Cumulative no .of plants	Not specified.	6300 plants cummulative plantation claimed by the lessee.	
6f	Any other method of rehabilitation	NIL	NIL	
6g	Cost incurred on watch and care during the year	Not specified.	Watch and care carried by the existing mine employee.	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	NIL	NIL
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NIL	NIL
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	NIL	NIL
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NIL	NIL as not matured.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NIL	NIL
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	NIL	NIL
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NIL	NIL

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NIL	NIL	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodical monitoring of environmental parameters are proposed in core and buffer zone	Carried as proposed.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Annual report on PMCP not submitted . Violation of Rule 26(2) of MCDR 2017 issued vide letter dated 17.01.2023. Area not matured for back filling, reclamation and rehabilitation.

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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 within lease	carried as proposed.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	
7c	Different grade of mineral sorted out at mines.	45 to 55 % Fe & +55% Fe	45 to 55 % Fe & +55% Fe	
7d	Any beneficiation process at mines	Screening and Crushing	Screening and Crushing	Dry process.

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Grade wise sorting is carried out as proposed. No other beneficiation process adopted except screening and crushing.	Grade wise sorting is carried out as proposed. No other beneficiation process adopted except screening and crushing by dry processing.
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**Environment:**

Sl.No.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Top soil generated to be used for plantation.	Carried as proposed.	
8b	Concurrent use or storage of topsoil	No proposal for storage.	Used for plantation no storage of top soil observed during inspection.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumps for Overburden, Mineral Rejects is proposed	Carried as proposed.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposal.	Not applicable.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	NIL	Not matured for reclamation.	

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8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Not specified. 1400 plantation made		
8g	Survival rate	Not specified. approximately 70%		
8h	Water sprinkling on roads to control airborne dust	Water Sprinkling is proposed on haul road to control airborne dust	Water Sprinkling is carried by water tanker on haul road to control dust.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Aesthetic beauty around the mines is good as it is a new mine opened on 09.01. 2020 . Water sprinkling on mine roads being practiced to control dust.		

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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	As per MCDR2017, the monthly return are to be submitted before the 10th day of every month in respect of the proceeding month and AR shall be submitted before the 1st day of July each year for the proceeding finicial year.	Returns submitted in time.	

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	In AR it is mentioned that Mining Engg: nil, Geologist: - 01	During inspection both Mining Engg and Geologist were present. Mining Engg appointed on 07.03.2022.	During inspection both Mining Engg and Geologist were present.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area in O/C working:- 6.884 ha waste disposal:- 0.1 ha Stacking of Mineral :- 3.2 ha	BROADLY AS PER AR SUBMITTED.	
9d	Scrutiny of Annual return on afforestation	2000 plantation made with survival rate of 60 %	approximately as per AR submitted. ( 70 % survival and approx 1400 plantation observed)	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	55732 tonnes of Mineral reject ( below 55%)	55732 tonnes of Mineral reject ( below 55%)	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	300192 Tonne ROM +45% Fe	300192 Tonne ROM +45% Fe	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production Rs 2445/-	Cost of production Rs 2445/-	
9h	Scrutiny of Annual return on fixed assets	Value of fixed assets Rs 1277021814/-	Value of fixed assets Rs 1277021814/-	
9k	Scrutiny of Annual return on mining machineries	BACK HOE- 06 NOS, Front END LOADER -04 NOS DUMPER 25TONNE:- 07 NOS	BACK HOE- 06 NOS, Front END LOADER -04 NOS DUMPER 25TONNE:- 07 NOS	

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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
MCDR17 Rule 11(1)	17/01/2023				
MCDR17 Rule 12(4)	17/01/2023				
Rule 26(2)	17/01/2023				
MCDR17 Rule 33	17/01/2023				
MCDR17 Rule 34(2)	17/01/2023				
MCDR17 Rule 48	17/01/2023				

**Date :** 02.02.2023

**(SANJAY KUMAR MAHAPATRA)**

Indian Bureau of Mines