

**MCDR INSPECTION REPORT**

1) Name of Inspecting officer:	<b>Sri. Jitendriya Pradhan</b>
2) Designation	Asst. Mining Engineer
3) Accompanying mine official with designation	Mr. Shri Sudhakar Sahoo ( Mines Manager) Mr.A.K. Baral
4) Date of Inspection	14.03.2024

**Part-I: General**

S. N.	Particulars	Details
1	Name of the Mine	Bhanjapali Iron Ore Mines
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	Total Lease area:- 18.000 Ha. Forest area :- 12.560 Ha. Non-Forest area:- 5.440Ha.
3	Mine code	30ORI13043
4	IBM Registration Number under rule 45 of	IBM/8414/2011
5	Name of the lessee, Address, phone, email and fax number	Bhanjapali Iron Ore Mines of Shri J.N.Patanaik At/Po:- Baneikala Dist:- Keonjhar State:- Odisha (758038)
6	Village	Bhanjapali
7	Taluka/Mandal	Koira
8	District	Sundargarh
9	Pin code	770048
10	State	Odisha
11	Post office	Koira
12	Nearest police station	Koira
13	Nearest Railway station	Barsuan
14	Date of Grant of Mining Lease	13/12/1996
15	Date of Execution	01/04/1997
16	Date of opening of Mine	01/04/1997
17	Date of first Renewal, if applicable and its period & expiry	Date of Expiry 31.03.2027
18	Date of second Renewal, if applicable and its period & expiry	NA
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	NA
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Jitendranath Patnaik, At-Boneikela, Po-Joda, Dist-Keunjhar, Phone No-06767-270106

1/32101/2024

21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri Soumya Patnaik At/Po:- Baneikala Dist:- Keonjhar State:- Odisha (758038)
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines, qualification	Shri Sudhakar Sahoo Bhanjpali Iron Ore Mine of Shri J.N.Patanaik At/Po-Koira, Dist:- Sundargarh State:- Odisha (770048) Email:- <a href="mailto:sudhakarsahoo1947@gmail.com">sudhakarsahoo1947@gmail.com</a> Date of Appointment:- 20.02.21 Qualification:- B.Tech (Mining) Mob-9437462008
23	Name of the Mining Engineer & Geologist, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine,	Shri Sudhakar Sahoo Bhanjpali Iron Ore Mine of Shri J.N.Patanaik At/Po-Koira, Dist:- Sundargarh State:- Odisha (770048) Email:- <a href="mailto:sudhakarsahoo1947@gmail.com">sudhakarsahoo1947@gmail.com</a> Date of Appointment:- 20.02.21 Qualification:- B.Tech (Mining) Experience-12 Yrs Mob-9437462008 Shri Amiya Kumar Baral Bhanjapalli Iron Ore Mine of Shri J.N.Patanaik At/Po-Koira, Dist:- Sundargarh State:- Odisha (770048) Email: <a href="mailto:amiyabaral14@gmail.com">amiyabaral14@gmail.com</a> Qualification:- M.Sc ( Geology) Mob:9778650348
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Yes
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Review of the Mining Plan vide letter No. RMP/A/23-OR11/BHU/2021-22, dated: 22.11.2021, Five year plan period is (2022-23 to 2026-27)
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	Review of the Mining Plan vide letter No. RMP/A/23-OR11/BHU/2021-22, dated: 22.11.2021, Five year plan period is (2022-23 to 2026-27)
27	Mineral(s) granted in lease and proved for mining	Iron Ore
28	Method of Mining(Open cast, Underground)	Open Cast
29	Category (Fully Mechanized, Others or Manual)	OTFM
30	Captive/Non Captive	Non Captive

I/32101/2024

## Details about Mining Plan/ Mining Scheme

a) Letter No. and date of approval of mining plan	:	Review of the Mining Plan vide letter No. RMP/A/23-OR11/BHU/2021-22, dated: 22.11.2021, Five year plan period is (2022-23 to 2026-27)
b) Letter No. and date of approval of mining scheme.	:	RMP/A/11-ORI/BHU/2020-21, dated: 18.08.2020, Five year plan period is (01.04.2017 to 31.03.2022) MRMP/A/52/ORI/BHU/2021-22, Dated.18.03.2021 Review of the Mining Plan vide letter No. RMP/A/23-OR11/BHU/2021-22, dated: 22.11.2021, Five year plan period is (2022-23 to 2026-27) Five year Plan Period is (01.04.2022 to 31.03.2027)
c) Condition while approving the MP/ MS/ modification	:	No Specific condition
d) Period of mining plan/ mining scheme in force :	:	Five year plan period:- (2022-23 to 2026-27)

**1. Scientific Mining:** Compliance of proposals of approved mining plan/scheme of mining. (Duplication of information in existing TMIS data sheets and draft write up has been avoided.)

**Exploration:**

S.N.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year (2022-23)	08	10	Within the Proposal
1b	Exploration over lease area for Geological axis 1 or 2.	G1	G1	Within the Proposal
1c	Exploration Agency & Expenditure in lakh Rupees during the year	M/s Geomac Solutions (P). Ltd. & Rs.- 24,06,728/-	Within the proposal	Within the Proposal
1d	Balance area to be explored to bring Geological axis in 1 or 2	G1	Nil	Within the Proposal
1e	Balance reserves as on 01.04.2023	---	4355962.00 MT.	Within the Proposal
1f	General remarks of inspecting officer on geology, exploration etc.			Within the Proposal

1/32101/2024 **2. Development:**

S.N.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	Quarry:-1 N-2424550 to 2424657 E-319120 to 319225  Quarry:-2 N-2424290 to 2424550 E-319130 to 319320  Quarry :-3 N-2424040 to 2424100 E-319208 to 319284	Within the Proposal.	Within the Proposal
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Top soil generation is Nil and Separate bench in OB & Mineral is proposed	Separate benches in OB and Mineral Benches have been maintain	Within the Proposal
2c	Stripping ratio or ore to OB ratio	1:0.335	1:0.321	Within the Proposal
2d	Quantity of topsoil generation in m <sup>3</sup>	Nil	NA	
2e	Quantity of overburden generation in m <sup>3</sup>	86928	51705	Less development due to lack of dumping space. Modification of Mining Plan has been submitted.
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.			Less development due to lack of dumping space. Modification of Mining Plan has been submitted

**3. Exploitation ( 2022-23)**

S.N.	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	3	3	Within the proposal
3b	Quantity of ROM mineral production proposed	362932 MT	259970 MT	Modification of Mining Plan has been submitted. Less development work. Lack of dumping space.

I/32101/2024

3c	Recovery of salable/usable mineral from ROM production	298885 MT	259970 MT	
3d	Quantity of mineral reject generation	64047MT	65870MT	
3e	Grade of mineral reject generation and threshold value declared	45-55%Fe	45-55%Fe	-----
3f	Quantity of sub-grade mineral generation	Nil	Nil	Nil
3g	Grade of sub-grade mineral generation	Nil	Nil	Nil
3h	Manual / Mechanized method adopted for segregating from ROM	Mechanized method adopted for segregating from ROM	Mechanized method adopted for segregating from ROM	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral	Nil	Nil	
3j	Provision of drilling & blasting in mineral benches	Yes	Yes	
3k	Provision of mining machineries in mineral benches	Yes	Yes	
3l	Whether height of benches in overburden and mineral suitable	Yes	Yes	
3m	Total area covered under excavation/pits	7.635 Ha.	7.073 Ha.	
3n	Ore to OB ratio for the pit/mine during the year	1:0.138	1:0.138	
3o	Total area put in use under different heads at the end of year	18.000 Ha	18.000 Ha	
3p	Production of ROM mineral during the last five year period as applicable.	2018-19= MT 2019-20=259935MT 2020-21= 2,60,000MT 2021-22=2,60,000MT 2022-23 = 298885 MT	2018-19= Nil 2019-20=251100MT 2020-21= 260000 MT 2021-22=2,60,000MT 2022-23 = 259500MT	
3q	General remarks of inspecting officer on method of mining etc.			Less development and production of ROM due to constraint of space for OB dumping.

#### 4. Solid Waste Management-Dumping:

1/32101/2024

S.N.	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Top soil:- Nil OB:- Over existing OB dump Mineral Reject:- Separate stack for Mineral reject is Proposed	Top soil:- Nil OB:- Over existing OB dump Mineral Reject:- Separate stack for Mineral reject as Proposed	
4b	Location of topsoil, OB & mineral reject dumps	Top Soil:- No Proposal OB:- N-2424518 to 2424680 E-319220 to 3193360 Mineral Reject:- N-2424031 to 2424385 E-319308 to 319372	Within the proposal	
4c	Number of dumps within lease area and outside lease area	With in Lease Area:- 1 No. Outside Lease Area:- Nil	With in Lease Area:- 1 No. Outside Lease Area:- Nil	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Out side Ultimate Pit Limit	Out side Ultimate Pit Limit	
4e	Number of active & alive dumps	1 Nos of Active dump	1 Nos of Active dump	
4f	Number of dead dumps	Nil	Nil	
4g	Number of dumps stabilized	1	1	
4h	Whether Retaining wall or garland drain all along dumps are there	Yes	Yes	
4i	Length of Retaining wall or garland drain all along dump	Retaining wall:- 200 Garland drain:- 200	Retaining wall:- 200 Garland drain:- 270	
4j	Number of settling ponds	2 Nos	2 Nos	
4k	Specific comments of inspecting officer on waste dump management			Within the proposal

#### **5. Solid Waste Management-Backfilling:**

S.N.	Item	Proposals	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Nil	Nil	
5b	Area under backfilling of mined out area	Nil	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Nil	Nil	
5d	Total area fully reclaimed & rehabilitated	Nil	Nil	
5e	General remarks of inspecting officer on backfilling, reclamation etc			Nil Proposals

**6. Progressive Mine Closure Plan:**

S.N.	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 23E (2). Details should be given in the format as given in Annexure-20.	Yes	Yes	
6b	Area available for rehabilitation (ha)	Nil	Nil	
6c	Afforestation done (ha)	Safety zone plantation- 0.232 Ha	Safety zone plantation- 0.55Ha	
6d	No. of saplings planted during the year	2320 no's	2500 no's	
6e	Cumulative no. of plants	5000	5500	
6f	Any other specific method of rehabilitation	Nil	Nil	
6g	Cost incurred on watch & care during the year		3 Nos of persons engaged for maintenance.	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L X B X D).	Nil	Nil	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Void filled by waste/tailings.	Nil	Nil	
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on the backfilled area.	Nil	Nil	

I/32101/2024

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir.	Nil	Nil	
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 rehabilitated (ha)	Nil	Nil	
6o	Compliance of Rehabilitation of waste land within lease (iii) Method of rehabilitation	By means of Plantation	By means of Plantation	
6p	Compliance of Environmental monitoring (core zone & buffer zone)	Air, water and Noise monitoring is proposed both in core and buffer zone	Air, water and Noise monitoring has been carried out both in core and buffer zone	
6q	General remarks of inspecting officer on PMCP compliance & progressive closure operations			Within the proposal

### 7. Mineral Conservation:

S.N.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Separate stack yard is proposed for Saleable ore and Mineral Reject	Separate stack yard for Saleable ore and Mineral Reject is maintained	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Mechanical	Mechanical	
7c	Different grade of mineral sorted out at mines	Saleable Ore:- +55% Fe Mineral Reject:- 45 to 55 % Fe	Saleable Ore:- +55% Fe Mineral Reject:- 45 to 55 % Fe	
7d	Any beneficiation process at mines	Dry beneficiation by means of Screening and Crushing	Dry beneficiation by means of Screening and Crushing is carried out	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues			Within the proposal.

### 8. Environment:

S.N.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Nil	Nil	
8b	Concurrent use or storage of topsoil	Nil	Nil	



1/32101/2024

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumps for Overburden, waste rock, Rejects and fines is proposed	Generated Overburden, waste rock, Rejects and fines dumped separately at earmarked location as per proposal	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Dump is proposed	Dump is done as per the proposal	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Nil	Nil	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Yes	Yes	
8g	Survival rate	70%	70%	
8h	Water sprinkling on roads to control airborne dust	Water Sprinkling is proposed on haul road to control airborne dust	As per the proposal Water sprinkling is carried out on haul road to control airborne dust.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Dumping issue because of lack of space inside the lease area.

### 9. Compliance of Rule 45 (2022-23)

S.N.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly – before 10 <sup>th</sup> of Following Month, Annual- Before 30 <sup>th</sup> June	Within the proposed date	Found in order
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Enginner-1 Geologist-1 Managar-1	Mining Enginner-1 Geologist-1 Managar-1	Found in order
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit-7.635 Hect. Reclamed-0.0 Dump-1.261	Pit-7.073 Reclamed-0.0 Dump-0.986	Found in order
9d	Scrutiny of Annual return on Afforestation	2320	Planted-2500	Found in order
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Quantity-64047 Grade-45+	Quantity-65870 Grade- 45 %	Found in order
9f	Scrutiny of Annual return on ROM stock and/or graded ore	298885	259970	Found in order
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost etc.		Production Cost - 2366	Found in order
9h	Scrutiny of Annual return on fixed assets		Rs. 66598999	Found in order

I/32101/2024

91	Scrutiny of Annual return on mining machineries	During Inspection	Engaged as Per Requirments	Found in order
----	---	-------------------	----------------------------	----------------

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

Rule No.	Nature of violation observed
45(7)	<p>On examination of submitted Annual Return of FY 2022-23, it is found to be incomplete/wrong as furnished below.</p> <p>i) <u>Item No. 4 of Part-VI</u>: The quantity of OB &amp; Waste at the beginning of year is 69989 cubic meter whereas in the approved mining (approved on dated 22.11.2021) it has been mentioned that (para 4.2.1.2) total dump quantity is 175680 tonnes (87840 cubic meter approximately).</p> <p>The same has to be rectified with giving proper justification.</p>

SIGNATURE

NAME OF THE I.O.- JITENDRIYA PRADHAN  
DATE – 09.05.2024