

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

**MCDR inspection REPORT
Jabalpur regional office**

Mine file No : MP/JBP/IORE-3

Mine code : 30MPR18004

- (i) Name of the Inspecting : **G005**) **SANJAY M. GIRHE**
Officer and ID No.
- (ii) Designation : Regional Mining Geologist
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 20-JAN-20
- (v) Prev.inspection date : 01-DEC-17

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **PRATAPPUR**
- (b) **Registration NO.** :
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address
State : MADHYA PRADESH
District : JABALPUR
Village : PRATAPPUR
Taluka : SIHORA (MEGHAGWA)
Post office : KUMTIKURD
Pin Code : 483334
FAX No. : N. A.
E-mail : N. A.
Phone : 07622-220142 (Katni)
- (f) Police Station :
- (g) First opening date : 27-AUG-78
- (h) Weekly day of rest : THU
2. Address for : ANAND MINING CORPN. LTD.
correspondance : PATHAK WARD, KATNI (M.P.) 483501
3. (a) Lease Number : MPR0651
(b) Lease area : 11.58
(c) Period of lease : 50
(d) Date of Expiry : 20-JUL-48
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : ANAND MINING CORPN. LTD.
 PATHAK WARD KATNI MADHYA
 PRADESH
 Phone:N. A.
 FAX :N. A.

Owner : ANAND MINING CORPN. LTD.
 PATHAK WARD KATNI MADHYA
 PRADESH
 Phone: N. A.
 FAX : N. A.

Mining Engineer

Name : VIJAY KR. PANDEY., Full Time
 Qualification : AMIE (MINING)
 Appointment/ : 06-APR-10
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	18-JUN-06
Plan/Scheme of Mining	:	Modif.approved Mining Scheme	08-MAY-08
	:	Mining Scheme rule 12 MCDR1988	17-SEP-10
	:	Modif.approved Mining Scheme	21-AUG-12
	:	Mining Scheme rule 12 MCDR1988	15-APR-14
	:	MP modif under 17(3) MCR 2016	22-JUN-18

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No exploration was proposed during the year 2018-19	NA	
1b	Exploration over lease area for geological axis 1 or 2	No exploration was proposed during the year 2018-19	Nil	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No exploration was proposed during the year 2018-19	Nil	Previously lease area was explored by lessee himself
1d	Balance area to be explored to bring Geological axis in 1 or 2	About 8.40 Ha area explored in G1 by working pit	Area explored under G1 level about 8.40 & rest area yet to be explored in G1 level	8.40 hact area is proven up to depth of 22 mts and further depth to be proven.
1e	Balance reserve as on 01/04/20	Reserves in Tonnes Proved (111) - 13,86,471 Probable (122) - 26,14,686 Resources Feasibility (221): 8,89,178 Pre-feasibility (222)- 10,89,238 The balance reserves as on 1/4/2018 as per ROMP approved on 09/01/2019	Reserves in Tonnes Proved (121) - 45831 (Lumps low grade) - 1621630 (Fines low grade) Probable (122) - 261686 Resources in tonnes Feasibility (211): 63358 (Lumps low grade) 820820 (Fines low grade) Pre-Feasibility (222)- 1089238 (Fines low grade) As per annual return 2018-19 The balance reserves as on 1/4/2020 as per Annual return.	Reserves were estimated separately for lumps & fines low grade iron ore in approved MP.

1f	General remarks of inspecting officers on geology, exploration etc	NA	NA	No detailed exploration carried out in ML area and mostly area is explored by way of working pit up to 20 to 22m and remaining area yet to be explored in G1 level.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	It was proposed to extend quarry-1 towards west from 398mRL to 392mRL	Mine working was carried out at proposed location.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate bench of 3m proposed for OB. Separate benches in ore of 6m was proposed.	Separate bench observed for OB. Bench height of 6 to 7m maintained in iron ore for systematic mining.	Most of the working lease is devoid of top soil. Sufficient development work carried out by removing top OB.
2c	Stripping ratio or ore to OB ratio	1:0.21 proposed during the year	NA as no OB generated during the year	
2d	Quantity of topsoil generation in m3	Not Proposed	Nil	
2e	Quantity of overburden generation in m3	17400 M3 Proposed during the year	No overburden generated during the year 2018-19	There is single quarry-1 & its dimension is (Quarry-1: 300m x (87m-300m) x (32m), Pit is very well developed by opencast mechanised working.

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	NA	NA	There is single quarry-1 & its dimension is (Quarry-1: 300m x (87m-300m) x (32m), Pit is very well developed by opencast mechanised working.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Working was proposed in Quarry-1 from 422mRL to 404mRL	Mine working was carried out in given single pit as per the proposals	
3b	Quantity of ROM mineral production proposed	246000 tonnes proposed in 2018-19	4402 tonnes (Achieved in 2018-19)	Production is less as the mining operation stopped in between the year
3c	Recovery of sailable/usable mineral from ROM production	90% recovery of Iron ore proposed	Almost 90 % achieved	About 10% of ROM generated as inter-burden waste.
3d	Quantity of mineral reject generation	Not Proposed	Nil	No ore rejection, entire utilised
3e	Grade of mineral rejects generation and threshold value declared.	Not Proposed	Nil	No mineral reject generation was proposed
3f	Quantity of sub grade mineral generation.	Not Proposed	Not Applicable	Neither any proposals were given for subgrade limestone nor any generated during the year.
3g	Grade of sub grade mineral generation	Not Proposed	Not Appliable	Not Proposed during the year

3h	Manual / Mechanised method adopted for segregating from ROM	Mechanical screening & sizing proposed	Mechanical screening & sizing carried out	Screening within the lease area. Capacity of screening unit 300 TPH
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed	Nil	Lessee is not having any plan for beneficiation study.
3j	Provision of drilling and blasting in mineral benches	No drilling & blasting proposed	Not Applicable	Mostly the iron ore is of friable/fines in nature
3k	Provision of mining machineries in mineral benches	Back Hoe Ex-210-02 Nos 1.2CuM, PC-300, Dumpers 27 T capacity-24 Nos Water Tanker-5KL Mobile Screening Unit	Back Hoe Ex-210-02 Nos 1.2CuM, PC-300, Dumpers 27 T capacity-13 Nos Water Tanker-5KL Mobile Screening Unit	HEMM deployment proposed as per the capacity & targeted production.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	One OB bench height of 3m is proposed. Bench height of 6m proposed in iron ore	Mostly the benches heights in ore are maintained	Proposed bench height is suitable as per the deposit
3m	Total area covered under excavation/pits	7.80 Ha area was proposed in approved MMP period i.e. 2018-19	7.59 Ha as on 01.04.2019 as per Annual Return, 2019-20	Due to less production during the year, broken area is less
3n	Ore to OB ratio for the pit/mine during the year.	Proposed as 1:0.21 Tonne/CuM	Not done	No OB/inter-burden generated during the year

3o	Total area put in use under different heads at the end of year	As per the previous approved MMP Pits-7.80 Ha Mineral Storage-0.50Ha Infrastructure -0.005Ha Road-0.10Ha As on 01.04.2018	Pits-7.59 Ha Reclaimed/Rehabilitated- 0.29Ha Other (Stacks, Plantation, etc)-3.65Ha Annual Return, 2018-19	No lateral excavation, production was carried out in already working pit.
3p	Production of ROM mineral during the last five year period as applicable	2014-15-: 871220MT 2015-16-: 904098MT 2016-17-: 985750MT 2017-18-: 953925MT 2018-19-: 246000MT	2014-15-: 801734MT 2015-16-: 866422MT 2016-17-: 479048MT 2017-18-: 505851MT 2018-19-: 4402 MT	Production details as per annual returns from 2014-15 to 2018-19. Less production in 2018-19 as mine operation stopped due to statutory clearance & machineries issues
3q	General remarks of inspecting officers on method of mining etc.	NA	NA	Open cast mechanised mine working proposed by using Excavator & dumper combination without drilling & blasting. Single working pit is located North-eastern side. Mineralisation proved up to depth of 25mts. by working pits.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No top soil generation was proposed.	Not Applicable	Working was proposed in already working pit

4b	Location of topsoil, OB and mineral reject dumps	OB/waste proposed for backfilling. No dumping was proposed	Not done	Mine temporarily discontinued due statutory/machinery issue
4c	Number of dumps within lease area and outside of lease area	Only one dumps within lease area located toward South-western side	Only one dumps within lease area located toward South-western side	No dumping outside ML
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	OB/waste generated proposed for backfilling ore exhausted pit	Existing OB dumps outside the UPL	OB/waste dump laying towards south-western part of ML area
4e	Number of active and alive dumps.	At Present one big size OB in the lease area towards south-western part of ML	At Present one big size OB in the lease area towards south-western part of ML	This is active dump & not stabilised so far.
4f	Number of dead dumps.	No dead dumps in the lease area	No dead dumps in the lease area	
4g	Number of dumps established.	Not Proposed	Nil	Proposals not given in approved document
4h	Whether Retaining wall or garland drain all along dumps are there.	Not Proposed	Nil	Proposals not given in approved document
4i	Length of Retaining wall or garland drain all along dumps	Not Proposed	Not Applicable	Proposals not given in approved document
4j	Number of settling ponds	Not Proposed	Nil	Proposals not given in approved document

4k	Specific comments of inspecting officer on waste dump management	NA	NA	The mine waste is in the form of lateritic soil in southern part of ML area. These mine waste proposed for backfilling purpose in already ore exhausted pits
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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.	Existing pit not mineral/ore exhausted so far	None of the quarry area is fully ore exhausted. Hence, scope doesn't exist.	Backfilling proposed on 7.5m barrier zone
5b	Area under backfilling of mined out area	Total 2500 Sq.M area was proposed for backfilling in 7.5m barrier zone	Backfilling not carried out	Mine temporarily discontinued due statutory/machiner ies issue
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not Proposed	Nil	No top soil generation was proposed during the year
5d	Total area fully reclaimed and rehabilitated	1400 Sq.M area was proposed for backfilling	Not done	Total 0.24 Ha area backfilled over 7.5m barrier zone

5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	NA	Lateritic waste as mine waste encountered in the lease area. No top soil generation is proposed. Generated mine waste proposed for reclamation by backfilling means over 7.5m statutory barrier zone.
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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 before 1st July of every year	Yes, submitted within time limit as per the provisions of Rule 26 of MCDR,2018	
6b	Area available for rehabilitation (ha) .	Not Proposed	Not done	Mining operations are continued & no benches matured so far rehabilitation purpose so far.
6c	afforestation done (ha) .	Not Proposed	Nil	
6d	No. of saplings planted during the year	Not Proposed	Not done	
6e	Cumulative no .of plants	NA	NA	Information not available
6f	Any other method of rehabilitation	Not Proposed	Nil	
6g	Cost incurred on watch and care during the year	Not Proposed	Nil	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	2500 Sq.M area was proposed for backfilling over 7.5m	Backfilling not carried out as proposed	Mine temporarily discontinued due statutory/machineries issue
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	2500 Sq.M area was proposed for backfilling over 7.5m	Backfilling not carried out as proposed	Mine temporarily discontinued due statutory/machineries issues
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	Not Proposed	Nil	Mine temporarily discontinued due statutory/machineries issue
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not Proposed	Nil	
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Not Proposed	Nil	
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Not Proposed	Nil	
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	Not Proposed	Nil	

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not Proposed	Not Applicable	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodical Air, Water, Noise monitoring Proposed	Carried out as per the proposals	Analysis reports were provided during the inspection
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	NA	NA	Scope of PMCP work is not very well existed in the lease area as none of the working pit fully ore exhausted. Backfilling was proposed at 7.5m barrier zone.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	246000 tonnes proposed as total ROM production for despatch. No grade wise sorting proposed	4402.92 tonne ore produced & 4402.92 tonne fines ore of <55% Fe grade dispatched	Production of only <55% Fe content carried out during the year
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Screening & sizing of Iron ore proposed	Screening & sizing of Iron ore carried out	Provision of mobile crushing & screening unit of 300TPH is made inside ML area
7c	Different grade of mineral sorted out at mines.	Sponge grade iron ore, Cement grade & Beneficiable grade proposed	Sponge grade - Fe 58 to 60%, Cement grade - 48 to 50% & Beneficiable grade -45 to 52%	

7d	Any beneficiation process at mines .	No beneficiation proposed within ML area	Not done	Iron ore of ML supplied to beneficiation plant located at Hargarh, Sihora for grade upgradation
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NA	NA	Ore is being conserved by suitable screening & sizing. Iron ore being supplied to the beneficiation plant located Sihora for upgradation.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No top soil generation & utilization proposed	Nil	Top soil not encountered
8b	Concurrent use or storage of topsoil	Not Proposed	Nil	No generation of top soil proposed during the year.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	OB generated proposed for backfilling at 7.5m barrier zone & for protective bund formation.	Backfilling not done	Mine temporarily discontinued due statutory/machiner ies issue
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Use of overburden proposed for backfilling purpose at 7.5m barrier zone only	Backfilling not carried out as per proposals	Mine temporarily discontinued due statutory/machiner ies issue

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not Proposed	Nil	Working pits not matured for the said purpose
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Plantation not proposed during the year	Not done	Proposals not given in approved document
8g	Survival rate	Not Proposed	Nil	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling is proposed by water tanker	Regular water sprinkling is done by water tanker	Water tanker of 5KL capacity is provided for the purpose
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	NA	NA	Aesthetic beauty in and around mine area is good as sufficient numbers of saplings have been planted within ML area. Further, plantation also done in mine office premises.

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. submitted upto- January- 2020 A.R. submitted upto- 2018-19	Annual Return for the year 2018-19 submitted within time limit & Annual return for the year 2019-20 was under preparation.	

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Not Given	Mine temporarily discontinued due statutory/machineries issues
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Not Given	Pits-7.59 Ha Reclaimed/Rehabilitated-0.29Ha Other (Stacks, Plantation, etc)-3.65Ha
9d	Scrutiny of Annual return on afforestation	Not Given	Some plantation were observed along statutory barrier
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Not Given	No mineral rejects generated during the year
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Given	Lumps <55% Fe Grade: O/S-16469 MT Despatch-Nil C/S-16469MT Lumps <55% Fe Grade: O/S-34535 MT Despatch-4402 MT C/S-34535MT
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Given	Ex-mine price: <55% Fe Grade -Rs 404/MT
9h	Scrutiny of Annual return on fixed assets	Given	Nil
9k	Scrutiny of Annual return on mining machineries	Given	Back Hoe Ex-210-02 Nos 1.2CuM, PC-300, Dumpers 27 T capacity-13 Nos Water Tanker-5KL Mobile Screening Unit

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)	09-MAR-20	07-AUG-20				
	Rule 26(2)	09-MAR-20	07-AUG-20				
	Rule 28(1)	09-MAR-20	23-JUL-20				
MCDR17	Rule 31(4)	09-MAR-20	23-JUL-20				

Date :

(SANJAY M. GIRHE)

Indian Bureau of Mines