

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/SNG/MCDR-23/BBS

Mine code : 30ORI13051

- (i) Name of the Inspecting : **U11**) **DAYANAND UPADHYAY**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Sri H.S.Pattanayak, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 02/01/2021
- (v) Prev.inspection date : 25/11/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **PATABEDA**
- (b) **Registration NO.** : **IBM/290/2011**
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address
State : ORISSA
District : SUNDARGARH
Village :
Taluka :
Post office :
Pin Code :
FAX No. : 06767-275770
E-mail : mgmbbl@gmail.com
Phone : 06767-275318, 276319
- (f) Police Station : KOIRA
- (g) First opening date : 12/11/2006
- (h) Weekly day of rest : SUN
2. Address for : VILLAGE- PATABEDA,
correspondance P.O.- MALDA
DISTRICT- SUNDARGARH,
3. (a) Lease Number : ORI0979
(b) Lease area : 28.4
(c) Period of lease : 20
(d) Date of Expiry : 07/03/2026
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : M/S.MGM.MINERALS (P) LTD
SUNDARGARH ORISSA
Phone:
FAX :

Owner : M.G.MOHANTY
PB-17,PO.BARBIL,KEONJHAR
ORISSA. KEONJHAR ORISSA
Phone: 06767-30318
FAX : 06767-30770

Agent : B. N. Mohapatra
2A, Forest park Bhubaneswar
KHURDA ORISSA
Phone: 0674-2596390
FAX : 0674-2596400

Mining Engineer

Name : SHRI P K SATAPATHY,Full Time
Qualification : B E MINING
Appointment/ : 01/03/2013
Termination date

Geologist

Name : SHRI M K PATNAIK,Full Time
Qualification : MSC (GEOLOGY)
Appointment/ : 01/09/2009
Termination date

Manager

Name : HIMANSHU PATTNAIK
Qualification : DIGREE MINING
Appointment/ : 11/05/2014
Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	08/11/2002
Plan/Scheme of Mining	:	Modif.of approved Mining Plan	26/10/2007
	:	Mining Scheme rule 12 MCDR1988	01/04/2011
	:	Mining Scheme rule 12 MCDR1988	28/03/2016
	:	Modif.approved Mining Scheme	24/11/2017
	:	MP review under 17(1) MCR 2016	18/11/2020

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	In 2019-20, there was no exploration proposal.	Entire potentially mineralised area has been explored under G1 level by putting 61 nos. of bore holes of total meterage 2720.72m	Entire potentially mineralised area has been explored under G1 level by putting 61 nos. of bore holes of total meterage 2720.72m
1b	Exploration over lease area for geological axis 1 or 2	In 2019-20, there was no exploration proposal.	Entire potentially mineralised area has been explored under G1 level by putting 61 nos. of bore holes of total meterage 2720.72m	Entire potentially mineralised area has been explored under G1 level by putting 61 nos. of bore holes of total meterage 2720.72m
1c	Exploration Agencies and Expenditure in lakh rupees during the year	In 2019-20, there was no exploration proposal.	Nil.	In 2019-20, there was no exploration proposal.
1d	Balance area to be explored to bring Geological axis in 1 or 2	In 2019-20, there was no exploration proposal.	Entire potentially mineralised area has been explored under G1 level by putting 61 nos. of bore holes of total meterage 2720.72m	Entire potentially mineralised area has been explored under G1 level by putting 61 nos. of bore holes of total meterage 2720.72m
1e	Balance reserve as on 01/04/20	As per modification of review of mining plan approved dated 24.11.2017, Reserve and Resource as follows: Reserve under 111&122 category is 11110134 T and Resources under 211 & 222 category is 637091T.	Balance reserve as on 01/04/2020 is 8265287.00T	Balance reserve as on 01/04/2020 is 8265287.00T

1f	General remarks of inspecting officers on geology, exploration etc	In 2019-20, there was no exploration proposal.	Entire potentially mineralised area has been explored under G1 level by putting 61 nos. of bore holes of total meterage 2720.72m	Entire potentially mineralised area has been explored under G1 level by putting 61 nos. of bore holes of total meterage 2720.72m
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	The development proposed between 2426000-2426990N / 331640-331990E	The development is carried out between proposed limit.	The development is carried out between proposed limit.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	There is no proposal for top soil generation. Intercalated waste present within ore benches.	There is no proposal for top soil generation. Intercalated waste present within ore benches.	There is no proposal for top soil generation. Intercalated waste present within ore benches.
2c	Stripping ratio or ore to OB ratio	1:0.170	1:0.056	The ROM production was less than proposed. Hence, subsequent development was less.
2d	Quantity of topsoil generation in m3	There was no proposal for top soil generation.	Nil	No top soil generated.
2e	Quantity of overburden generation in m3	90605 cu.m	46589 cu.m	The ROM production was less than proposed. Hence, subsequent waste generated was less.

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	The development proposed between 2426000-2426990N / 331640-331990E	The development is carried out between proposed limit.	The development is carried out between proposed limit.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	one number of pit was proposed for production	one number of pit was put for production	one number of pit was put for production
3b	Quantity of ROM mineral production proposed	In 2019-20, ROM proposed 1499990.0T	In 2019-20, ROM production carried out 828700.0T	In 2019-20, ROM production carried out 828700.0T
3c	Recovery of sailable/usable mineral from ROM production	Recovery of salable mineral from ROM was 1254090.0T and mineral reject 245900.0T	In 2019-20, generation of salable mineral was 867900.0T and mineral reject 151331.99T	In 2019-20, generation of salable mineral was 867900.0T and mineral reject 151331.99T
3d	Quantity of mineral reject generation	245900.0T	151331.99T	The generation was less due to less ROM production
3e	Grade of mineral rejects generation and threshold value declared.	+45 % Fe to 58 % Fe	+45 % Fe to 58 % Fe	+45 % Fe to 58 % Fe
3f	Quantity of sub grade mineral generation.	245900.0T	151331.99T	The generation was less due to less ROM production
3g	Grade of sub grade mineral generation	+45 % Fe to 58 % Fe	+45 % Fe to 58 % Fe	+45 % Fe to 58 % Fe
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized method	Mechanized method	Mechanized method

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed	Only crushing and screening is being carried out at mines site.	Only crushing and screening is being carried out at mines site.
3j	Provision of drilling and blasting in mineral benches	Deep hole drilling and blasting.	Loosening of rock mass was done by drilling & blasting. For this purpose wagon drill of 110 mm dia is being used with burden and spacing of 3.0 m and 3.5 m respectively.	Loosening of rock mass was done by drilling & blasting. For this purpose wagon drill of 110 mm dia is being used with burden and spacing of 3.0 m and 3.5 m respectively.
3k	Provision of mining machineries in mineral benches	Shovel and dumper combination.	Shovel and dumper combination.	Heavy Earth moving machinery has been deployed within the mines to produce required production of ore and its transportation.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	The height of the bench proposed is 10m.	The height of the bench is suitable for the method of mining proposed in mining plan.	The height of the bench is suitable for the method of mining proposed in mining plan.
3m	Total area covered under excavation/pits	During approved plan period 13.64ha	Area under excavation is 12.340 Ha.	Area under excavation is 12.340 Ha.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.170	1:0.056	The ROM production was less than proposed. Hence, subsequent development was less.

3o	Total area put in use under different heads at the end of year	As per the modification of review of mining plan approved dated 24.11.2017, the total area under different heads at the end of plan period will be 28.397 Ha.	Area under different heads at the end 2019-20 is 24.054 ha.	Area under different heads at the end 2019-20 is 24.054 ha.
3p	Production of ROM mineral during the last five year period as applicable	2015-16-556478.000mt. 2016-17-662338.000mt. 2017-18-800596.000mt. 2018-19-1499990.000mt. 2019-20-1499990.000mt. 2017-18:- 862906 MT 2018-19:- 500398 T 2019-20: 1499990.0T	2015-16-412215.000mt. 2016-17-293778.000mt. 2017-18-796118.000mt. 2018-19-796000.000mt. 2019-20-828700.000mt.	ROM production is within approved proposal.
3q	General remarks of inspecting officers on method of mining etc.	Excavation of ROM has been proposed in one pit.	The ROM production has been carried out in one pit as proposed.	The ROM production has been carried out in one pit as proposed.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No Topsoil. OB/waste dump-3 (N2427170-2427016, E331652-331752) Mineral Reject dump (N2427030-2427100, E331710-331790)	No Topsoil. OB/waste dump-3 (N2427170-2427016, E331652-331752) Mineral Reject dump (N2427030-2427100, E331710-331790)	Dumping is as per proposal.

4b	Location of topsoil, OB and mineral reject dumps	No Topsoil. OB/waste dump-3 (N2427170-2427016, E331652-331752) Mineral Reject dump (N2427030-2427100, E331710-331790)	No Topsoil. OB/waste dump-3 (N2427170-2427016, E331652-331752) Mineral Reject dump (N2427030-2427100, E331710-331790)	Dumping is as per proposal.
4c	Number of dumps within lease area and outside of lease area	Dump-3 proposed for dumping.	4 nos of dumps inside the mines.	No dump outside the mining lease.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside UPL	Outside UPL	Outside UPL
4e	Number of active and alive dumps.	One dump	One dump i.e Dump-3 is active.	One dump i.e Dump-3 is active.
4f	Number of dead dumps.	02nos. of Dumps.	02nos. of Dumps.	02nos. of Dumps.
4g	Number of dumps established.	02nos. of Dumps.	02nos. of dead dumps have stabilized.	02nos. of dead dumps have stabilized.
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall of 180m and garland drain of 200m.	Nil	Violation was pointed to the lessee for shrtcoming of retaining wall and garland drain.
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall of 180m and garland drain of 200m.	Nil	Violation was pointed to the lessee for shrtcoming of retaining wall and garland drain.
4j	Number of settling ponds	Not proposed	4 nos. of settling ponds are present in the lease area.	4 nos. of settling ponds are present in the lease area.

4k	Specific comments of inspecting officer on waste dump management	No Topsoil. OB/waste dump-3 (N2427170-2427016, E331652-331752) Mineral Reject dump (N2427030-2427100, E331710-331790)	No Topsoil. OB/waste dump-3 (N2427170-2427016, E331652-331752) Mineral Reject dump (N2427030-2427100, E331710-331790)	Dumping is as per proposal.
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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.	Not proposed as pit is not exhausted.	Nil.	Mine is not matured for reclamation and rehabilitation.
5b	Area under backfilling of mined out area	Not proposed as pit is not exhausted.	Nil.	Mine is not matured for reclamation and rehabilitation.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not proposed as pit is not exhausted.	Nil.	Mine is not matured for reclamation and rehabilitation.
5d	Total area fully reclaimed and rehabilitated	Not proposed as pit is not exhausted.	Nil.	Mine is not matured for reclamation and rehabilitation.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Not proposed as pit is not exhausted.	Nil.	Mine is not matured for reclamation and rehabilitation.

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
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6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	As per provision of MCDR 2017	Annual return on PMCP has been submitted.	Annual return on PMCP has been submitted.
6b	Area available for rehabilitation (ha) .	Not proposed as pit is not exhausted.	Nil.	Mine is not matured for reclamation and rehabilitation.
6c	afforestation done (ha).	0.0625 Ha	Gap plantation in 0.0625 Ha.	Gap plantation in 0.0625 Ha.
6d	No. of saplings planted during the year	240 nos. of saplings.	240 nos. of saplings.	Plantation is per proposal.
6e	Cumulative no .of plants	Not specified.	25235 nos. of cumulative plantation.	25235 nos. of cumulative plantation.
6f	Any other method of rehabilitation	Not proposed as pit is not exhausted.	Nil.	Mine is not matured for reclamation and rehabilitation.
6g	Cost incurred on watch and care during the year	Not specified.	Rs.187050.0 incurred in watch and care.	Rs.187050.0 incurred in watch and care.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Not proposed as pit is not exhausted.	Nil.	Mine is not matured for reclamation and rehabilitation.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not proposed as pit is not exhausted.	Nil.	Mine is not matured for reclamation and rehabilitation.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Not proposed as pit is not exhausted.	Nil.	Mine is not matured for reclamation and rehabilitation.

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not proposed as pit is not exhausted.	Nil.	Mine is not matured for reclamation and rehabilitation.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not proposed as pit is not exhausted.	Nil.	Mine is not matured for reclamation and rehabilitation.
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not proposed.	Nil.	Nil.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not proposed.	Nil.	Nil.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not proposed.	Nil.	Nil.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly monitoring	Quarterly monitoring	Quarterly monitoring
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Backfilling not proposed as pit is not exhausted.	Mine is not matured for reclamation and rehabilitation.	Mine is not matured for reclamation and rehabilitation.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting	Grade wise sorting	Grade wise sorting
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	Mechanical
7c	Different grade of mineral sorted out at mines.	Saleable Ore:+58 % Fe Mineral Reject:- +45 to 58% Fe	Saleable Ore:+58 % Fe Mineral Reject:- +45 to 58% Fe	Gradewise production of processed ore as furnished in annual return.
7d	Any beneficiation process at mines .	Not Proposed	Dry processing through screening and crushing is practiced.	Dry processing through screening and crushing is practiced.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Grade wise sorting proposed in mines	Grade wise sorting. Dry processing through screening and crushing is practiced.	Grade wise sorting. Dry processing through screening and crushing is practiced.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	There was no proposal for top soil generation and its subsequent utilization.	There was no generation of top soil.	There was no generation of top soil.
8b	Concurrent use or storage of topsoil	There was no proposal for top soil generation and its subsequent utilization.	There was no generation of top soil.	There was no generation of top soil.

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping for overburden/waste and mineral reject.	Separate dumping for overburden/waste and mineral reject. are carried out.	Separate dumping for overburden/waste and mineral reject. are carried out.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not proposed as pit is not exhausted.	Nil.	Mine is not matured for reclamation and rehabilitation.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not proposed as pit is not exhausted.	Nil.	Mine is not matured for reclamation and rehabilitation.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	240nos. plantation in 2019-20.	240nos. plantation in 2019-20.	240nos. plantation in 2019-20.
8g	Survival rate	Not specified.	Survival rate 87%.	Survival rate 87%.
8h	Water sprinkling on roads to control airborne dust	Water sprinkling proposed	Water sprinkling is being carried out.	Water sprinkling is being carried out.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	240nos. plantation in 2019-20.	240nos. of saplings planted in 2019-20. Aesthetic beauty in and around mines is maintained.	240nos. of saplings planted in 2019-20. Aesthetic beauty in and around mines is maintained.

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	Monthly returns and annual return for have been submitted.	Monthly returns and annual return for have been submitted.	Monthly returns and annual return for have been submitted.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information on Mining engineer, Geologist and Manager has been furnished in annual return	Mining Engineer, Geologist and Manager appointed in mines.	Mining Engineer, Geologist and Manager appointed in mines.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Lease area covered under current working:12.340 Ha, Dump- 0.093 ha, Occupied by plant buildings, residential, welfare buildings & roads: 5.527 Ha, Other purpose(dump, stack yard etc): 4.02 Ha etc	Lease area covered under current working:12.340 Ha, Dump- 0.093 ha, Occupied by plant buildings, residential, welfare buildings & roads: 5.527 Ha, Other purpose(dump, stack yard etc): 4.02 Ha etc	Lease area covered under current working:12.340 Ha, Dump- 0.093 ha, Occupied by plant buildings, residential, welfare buildings & roads: 5.527 Ha, Other purpose(dump, stack yard etc): 4.02 Ha etc
9d	Scrutiny of Annual return on afforestation	240 nos. of saplings.	240 nos. of saplings.	240 nos. of saplings.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	151331.990mt, 45% to below 58% Fe	151331.990mt, 45% to below 58% Fe	151331.990mt, 45% to below 58% Fe

9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing stock: Grade wise closing stocks for lumps and fines as furnished in Annual return. has been scrutinised and violation letter has been issued to the lessee. Lumps 62-65%=11447.360 MT Lumps 60-62%=5062.560.000MT Lumps 58-60%=223.710MT Lumps 55-58%=0.000MT Lumps 45-55%=5230.340T Fines 65% ABOVE= 1165.261MT Fines 62-65%= 17947.800MT Fines 60-62%= 21488.38MT Fines 55-58%= 66186.624MT Fines 45-55% = 94152.26MT	Grade wise closing stocks for lumps and fines as furnished in Annual return. has been scrutinised and violation letter has been issued to the lessee.	Grade wise closing stocks for lumps and fines as furnished in Annual return. has been scrutinised and violation letter has been issued to the lessee.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Grade wise Ex mine price for lumps and fines are furnished in Annual return.	Cost of production: Rs 1559.07/- Grade wise Ex mine price for lumps and fines as furnished in Annual return has been scrutinised and violation letter has been issued to the lessee.	Grade wise Ex mine price for lumps and fines as furnished in Annual return. has been scrutinised and violation letter has been issued to the lessee.
9h	Scrutiny of Annual return on fixed assets	Fixed Asset: Rs 101232825/-	Fixed Asset: Rs 101232825/-	Fixed Asset: Rs 101232825/-
9k	Scrutiny of Annual return on mining machineries	Shovel-5, Wheel loader: 4 nos, Dumper: 9 nos, Backhoe : 3 nos, Front End loader: 1 no etc.	Shovel-5, Wheel loader: 4 nos, Dumper: 9 nos, Backhoe : 3 nos, Front End loader: 1 no etc.	Shovel-5, Wheel loader: 4 nos, Dumper: 9 nos, Backhoe : 3 nos, Front End loader: 1 no etc.

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	

Date :

(DAYANAND UPADHYAY)

Indian Bureau of Mines