

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

MCDR INSPECTION REPORT

Nagpur regional office

Mine file No : MAH/GAD/FE-2/NGP

Mine code : 30MSH27002

- (i) Name of the Inspecting : **G002**) **OM PRAKASH GOPAL**
Officer and ID No.
- (ii) Designation : Regional Mining Geologist
- (iii) Accompanying mine : Mr. Jiwan Hedau, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 23-JAN-24
- (v) Prev.inspection date : 19-DEC-22

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **SURJAGARH (348.09HA)**
- (b) **Registration NO.** : **IBM/5067/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :
State : MAHARASHTRA
District : GADCHIROLI
Village : SURJAGARH(WOORIA HIL
Taluka : ETAPALLI
Post office : ETAPALLI
Pin Code : 442704
FAX No. :
E-mail :
Phone :
- (f) Police Station :
- (g) First opening date : 15-JUN-07
- (h) Weekly day of rest :
2. Address for :
correspondance :
3. (a) Lease Number : MSH0370
- (b) Lease area : 348.09
- (c) Period of lease : 50
- (d) Date of Expiry : 02-MAY-57
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : M/S LLOYDS METAL & ENGINEERS LTD
A-WING, BLOCK NO.805/806,
8TH FLOOR, LOKMAT BHAVAN,
RAMDASPETH, NAGPUR (MS)
NAGPUR MAHARASHTRA
Phone:
FAX :

6. Date of approval of Mining : Fresh under rule 22 MCR1960 03-MAR-04
Plan/Scheme of Mining Mining Scheme rule 12 MCDR1988 21-MAR-17

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NIL backlog of previous year. 34 Nos of Pitting and 33 Nos. of Boreholes were proposed during 2022-23.	140 Nos borehole were drilled in 2022-23	NIL
1b	Exploration over lease area for geological axis 1 or 2	G1: 24.81 Ha G2: 16.21 Ha G3 : 93.75	G1: 91.77 Ha	NIL
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NA	Thriveni Earth Movers Private Limited, Exploration Division. The total expenditure is 20.224 Cr in the year 2022-23.	NIL
1d	Balance area to be explored to bring Geological axis in 1 or 2	78.55Ha for G1 or 2	112.85 Ha explored under G1 or G2	NIL
1e	Balance reserve as on 01/04/20	Resources : 86.877 Million Tons and Reserves: 57.154 Million Tons (as on 01.04.2022)	As per Draft Modification in Mining Plan submitted in January 2024 Reserves and resources estimated as on 31.03.2023 are : Reserves under 111 category : 432.81 million tonnes (Hematite + BHQ) and under 122 category : 367.96 million tonnes (Hematite + BHQ; Resources under 211 category : 18.02 million tonnes (BHQ) and under 222 category : 45.97 million tonnes (BHQ)	NIL

1f	General remarks of inspecting officers on geology, exploration etc	NIL	NIL	The mine was inspected to process the Modification in Mining Plan submitted for approval. Proposed Modification is for enhancement of ROM production from 10 MTPA to 55 MTPA. Proposals has been incorporated for Mining and beneficiation of Banded Hematite Quartzite which was earlier considered as waste rock. As per submitted proposal BHQ will be beneficiated and upgraded into usable/saleable Iron ore.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Eastern Block N-2170129 to N-2170621 E-433476 to E- 433953 Central Block N- 2170677 to N-2171018 E-432761 to E- 433075	Eastern Block N-2170100 to N-2170635 E-433350 to E-433950 Central Block No working	NIL

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	There is no proposal for top soil generattion. Seperate benches proposed for working in OB and mineral	Seperate benches for OB and mineral are being developed as per approved proposals.	NIL
2c	Stripping ratio or ore to OB ratio	Easter Pit : 1 : 0.06 Central Pit :1 : 0.00	Eastern Pit is Operated with stripping ratio of 1:0.054. . The Central Pit was not Developed	NIL.
2d	Quantity of topsoil generation in m3	Nil	Nil	Nil
2e	Quantity of overburden generation in m3	431200 Tons	193773 cum	NIL
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	NIL	NIL	NIL

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two pits : Eastern Block and Central Block.	One pit : Eastern Block	NIL
3b	Quantity of ROM mineral production proposed	9999160 Tons	3582976 Tons	Production was less than approved proposal as EC for 10 mmillion tonnes was obtained on 24/2/2023
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	NIL

3d	Quantity of mineral reject generation	955360 Tons	NIL	As low grade ore were utilised for blending with high grade ore therefore, reject generation was NIL.
3e	Grade of mineral rejects generation and threshold value declared.	45% to 55%	Reject generation Not reported	NIL
3f	Quantity of sub grade mineral generation.	There was no proposal for subgrade generation during 2022-23.	NIL	NIL
3g	Grade of sub grade mineral generation	NA	NA	NIL
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	NIL
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	None	None	NIL
3j	Provision of drilling and blasting in mineral benches	Deep hole drilling & blasting	As per proposal	NIL
3k	Provision of mining machineries in mineral benches	Yes, provision is for deployment of mining machenaries.	Mining machenaries are being deployed as per approved proposal.	NIL
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed Benches Height: 10m and Bench width : 15m	Yes proposed bench dimension is suitable for Mechanaised operations. Height and width of benchesa are being maintained as per approved proposals.	NIL

3m	Total area covered under excavation/pits	16.26 Ha	31.718 Ha	NIL
3n	Ore to OB ratio for the pit/mine during the year.	ROM/Waste ratio : 1 : 0.04 (Tons/Cu.m)	ROM/Waste ratio : 1:0.054 (Tons/Cu.m)	It was proposed to develop two pits namely Eastrn and Central pit. Hoever, working was restricted in Easten pit. Central pit was not opene up in 2022-23.
3o	Total area put in use under different heads at the end of year	Area Under working:- 16.26Ha; Used for waste disposal:- 5.38Ha; Occupied by plant, Buildings, residential, welfare buildings and roads :- 35.79Ha; Used for other purpose (Specify): Mineral Stack Yard, Development for Infrastructure , HSD, Lab, Magazine, etc. :- 60.55Ha.	Area Under working:- 31.718Ha; Used for waste disposal:-0.56Ha; Occupied by plant, Buildings, residential, welfare buildings and roads :- 26.58Ha; Used for other purpose (Specify): Mineral Stack Yard, Development for Infrastructure, HSD, Lab, Magazine, etc. :- 52.168Ha; Work done under progressive mine closure plan during the year:- 1.00Ha	NIL
3p	Production of ROM mineral during the last five year period as applicable	2018-19 :6,00,000.0 T 2019-20 :10,71,600.0 T 2020-21 :10,40,100.0 T 2021-22 : 27,65,450.0 T 2022-23 : 9999160 T	2018-19 :168603.37 T 2019-20 :550.0 T 2020-21 :0.00 T 2021-22 :2759870.0 T 2022-23 :3582976.0 T	NIL

3q General remarks NIL NIL NIL
of inspecting
officers on
method of mining
etc.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No proposal for topsoil Dump/yard. Separate dumping for mineral reject and OB is proposed.	Top soil and Mineral Reject generation was NIL during reporting period. Generated OB are being dumped as per approved proposals.	
4b	Location of topsoil, OB and mineral reject dumps	No proposal for topsoil generation. OB Dump-1 : N 2170190 - N2170556 E 4334095 - E 434355 Mineral Reject: N 2170595- N 2170760 E 433680 - E 433970	There is no generation of Top soil and Mineral reject during reporting period. OB Dumping are being done as per approved proposal.	NIL
4c	Number of dumps within lease area and outside of lease area	Within Lease Area: 2 Nos	Within Lease Area: 1 Nos	NIL
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside UPL	Outside UPL	NIL
4e	Number of active and alive dumps.	Two	One	NIL
4f	Number of dead dumps.	NIL	NIL	NIL
4g	Number of dumps established.	NIL	NIL	NIL

4h	Whether Retaining wall or garland drain all along dumps are there.	Yes, Retaining wall or garland drain all along dumps is proposed.	Yes, The Retaining wall or garland drain all along dumps is being maintained.	NIL
4i	Length of Retaining wall or garland drain all along dumps	Retaining Wall : 550m Garland Drains : 550m	Retaining Wall : 590m Garland Drains : 600m	NIL
4j	Number of settling ponds	NIL	02	NIL
4k	Specific comments of inspecting officer on waste dump management	NIL	NIL	NIL

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.	No such proposal	NIL	NIL
5b	Area under backfilling of mined out area	No such proposal	NIL	NIL
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No such proposal	NIL	NIL
5d	Total area fully reclaimed and rehabilitated	No such proposal	NIL	NIL
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NIL	NIL	NIL

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).	Annual Report of PMCP should be submitted to IBM before 1st July of every year alongwith Annual Return.	Annual Report of PMCP submitted in time.	NIL
6b	Area available for rehabilitation (ha) .	No such proposal.	NIL	NIL
6c	afforestation done (ha).	NA	NA	NIL
6d	No. of saplings planted during the year	750	750	NIL
6e	Cumulative no .of plants	NA	990	NIL
6f	Any other method of rehabilitation	No such proposal.	NIL	NIL
6g	Cost incurred on watch and care during the year	NA	NA	NIL
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No such proposal.	NIL	NIL
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No such proposal.	NIL	NIL
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	No such proposal.	NIL	NIL

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No such proposal.	NIL	NIL
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No such proposal.	NIL	NIL
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	No such proposal.	NIL	NIL
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	No such proposal.	NIL	NIL
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	No such proposal.	NIL	NIL
6p	Compliance of environmental monitoring (core zone and buffer zone)	Environmental Monitoring should be undertaken in core and buffer zone	Environmental Monitoring are being done in core and buffer zone.	NIL
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	NIL	NIL	NIL

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	NIL
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanised	Mechanised	NIL
7c	Different grade of mineral sorted out at mines.	Gradewise sorting proposed	Lumps 60% below 62% Fe : 36290.0 Tons 62% below 65% Fe : 1959534.20 Tons Fines 60% below 62% Fe : 574070.0 Tons 62% below 65% Fe : 2853741.80 Tons	NIL
7d	Any beneficiation process at mines .	Crusining, screening and sizing	Crusining, screening and sizing	NIL
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NIL	NIL	NIL

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Generation of top soil not envisaged.	Generation of top soil not reported.	NIL
8b	Concurrent use or storage of topsoil	No such proposal as generation of top soil not envisaged.	NIL	NIL

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Generation of top soil not envisaged. Seperate dumps for OB and mineral rejects proposed.	Generation of top soil not reported. Low grade ores are being utilised for blending therefore Mineral rejects geeration is reported as NIL. Generated OB and waste are being dumped seperately as per approved proposals.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposal	NIL	NIL
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No such proposal	NIL	NIL
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Aforestation proposed.	Plantation are being done as per proposal	NIL
8g	Survival rate	90%	90%	NIL
8h	Water sprinkling on roads to control airborne dust	To control airborne dust, water spraying on haul roads proposed.	To arrest airborne dust, water spraying are being done on haul roads, and approach road.	NIL
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	NIL	NIL	NIL

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly Returns are to be submitted in online mode before 10th of every month in respect of preceding month and Annual Returns should be submitted in online mode before 1st JULy each year in respect of preceding financial year.	Monthly and Annual Returns are being submitted in online mode in time.	NIL
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Enginner: Mohsin Raza Khan Geologist: Sh. Vijay Sontakhe Manager: Sh. Jivandas Hedau	Manager, Mining Enginner and Geologist are in place.	NIL

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area Under working:- 31.718Ha; Used for waste disposal:- 0.56Ha; Occupied by plant, Buildings, residential, welfare buildings and roads :- 26.58Ha; Used for other purpose (Specify) Mineral Stack Yard, Development for Infrastructure , HSD, Lab, Magazine, etc. :- 52.168Ha; Work done under progressive mine closure plan during the year:- 1.00Ha.	Land use pattern details are in order.	NIL
9d	Scrutiny of Annual return on afforestation	No. of saplings planted : 750, survival rate : 90%	Details are in order	NIL
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Reject Generation : NIL	Generated low grade material are being utilised for blending with high grade ore. Thus reject generation is shown as NIL	NIL
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM : opening Stocks: 1840660 tones, Closing stocks: NIL	Details on opening and closing stocks are in order	NIL

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	<p>Lumps:</p> <p>51% to below 55% Fe: Rs. 2389/-;</p> <p>58% to below 60% Fe: Rs. 4905/-;</p> <p>60% to below 62% Fe: Rs.4333/-;</p> <p>62% to below 65% Fe: Rs. 5606/-;</p> <p>Fines:</p> <p>60% to below 62% Fe: Rs.2010/-;</p> <p>62% to below 65% Fe: Rs. 2518/-;</p> <p>Production cost: Rs. 3200.52/ tonnes</p>	EMP and Productions cast appear to be in order.	NIL
9k	Scrutiny of Annual return on mining machineries	<p>Blast hole Drills (102 mm) -3 no's, Air compressor: 3 nos.; Showel :31 nos.; Loader: 15 nos.; Trucks- 80 no's; Dozer: 05 nos. Water tanker- 10 No's; Crusher Plant :- 3 No's ; Motor Grader-2 No's</p>	Mining operations are by deployment of HEMM machenaries. Mining machenary details are in order.	NIL.

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 :

(OM PRAKASH GOPAL)

Indian Bureau of Mines