

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

MCDR INSPECTION REPORT

Nagpur regional office

Mine file No : MAH/CND/FE-11/NGP

Mine code : 30MSH08002

- (i) Name of the Inspecting : **M017**) **ASHISH MISHRA**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri Asif, Agent
Official with
Designation
- (iv) Date of Inspection : 09/11/2017
- (v) Prev.inspection date : 24/03/2014

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **WEGHALPETH**
- (b) **Registration NO.** : **IBM/8864/2012**
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address :
State : MAHARASHTRA
District : CHANDRAPUR
Village : WEGHALPETH
Taluka : CHIMUR
Post office : JAMULGHAT
Pin Code :
FAX No. :
E-mail :
Phone :
- (f) Police Station :
- (g) First opening date : 01/12/1988
- (h) Weekly day of rest :
2. Address for :
correspondance :
3. (a) Lease Number : MSH0059
- (b) Lease area : 10.21
- (c) Period of lease : 50
- (d) Date of Expiry : 01/06/2037
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : M/s Gahra Minerals
 Habib Nagar , Teka, Nagpur
 Distt. Nagpur (MS) NAGPUR
 MAHARASHTRA
 Phone:
 FAX :

Owner : M/s Gahra Minerals
 Habib Nagar, Teka, Nagpur
 Distt. Nagpur (MS) NAGPUR
 MAHARASHTRA
 Phone:
 FAX :

Mining Engineer

Name : SHRI RAMAKANT SINGH, Full Time
 Qualification : B. E. MINING
 Appointment/ :
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	28/03/2003
Plan/Scheme of Mining		Renewal under rule 24 MCR1960	19/12/2008
		Mining Scheme rule 12 MCDR1988	12/08/2013

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	4 DTH bore holes were proposed in the last approved SOM for the period of 2012-13 to 2016-17	4 DTH bore holes drilled during last approved SOM period.	
1b	Exploration over lease area for geological axis 1 or 2	G2	G2	As no core boreholes have been drilled and grid was also 200 m X 200 m, the area considered under G2. It was advised to carry out exploration complying Rule 12 of MCDR'17 and as per the UNFC guidelines given in MEMC Rules'2015.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposals for expenditure	Rs 179000/- over drilling and sampling of 4 DTH boreholes (30 m each). Boreholes drilled by lessee himself.	
1d	Balance area to be explored to bring Geological axis in 1 or 2	10.21 ha	10.21 ha	Complete area need to be explored in detail (G1) as per the provisions of Rule 12 of MCDR'2017.
1e	Balance reserve as on 01/04/20		As on 01.04.2017, Balance reserves are: 122-108827 T	

1f	General remarks of inspecting officers on geology, exploration etc	The lease area comprises a hillock with lateritic capping with Banded Magnetite Quartzite body exposed at places. The major part of the area on the surface is covered with Laterite, Lateritic soil and Limonite. The ore body is fully exposed in the central part and exposed from western to eastern side of the lease area. The general strike of the ore body is East-West and dip varying from 50 deg to 55 deg towards South. Fe content is 58% to 62%.	The area need to be explored in detail.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Central part of the area.	As per the proposals, in the central part between 100 S to 50 N and 200 W to 100 E grid location.	One pit is present in the central part.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes	Yes	
2c	Stripping ratio or ore to OB ratio	1:0.2	1:0.12	
2d	Quantity of topsoil generation in m3	Nil	Nil	
2e	Quantity of overburden generation in m3	4560 cuM	3200 cuM	

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	One pit has been developed centrally as per the occurrence of the orebody. General strike of the ore body is East-West and dip varying from 50deg to 55deg towards South. But in the hangwall side i.e., in the southern part of the pit, there is a waste dump which needs to be re-handled and shifted to footwall side for systematic development and production in future.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One Pit	One pit is there	
3b	Quantity of ROM mineral production proposed	2016-17: 33600 T	2016-17: 24334 T	

3c	Recovery of sailable/usable mineral from ROM production	90%	As per the proposals	Upon mechanical crushing and screening of ROM approximate recovery is 90% of graded ore having size range 20-80mm. Rest 10% of the material is having 5% as interburden or waste and 5% is having fines of -6mm size which is having less than 45% Fe and is below threshold value. therefore, as such no material having above threshold is generated and stacked separately.
3d	Quantity of mineral reject generation	No such proposals	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	No such proposals	Nil	
3f	Quantity of sub grade mineral generation.	No such proposals	Nil	
3g	Grade of sub grade mineral generation	No such proposals	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanical crushing and screening	Mechanical	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No such proposals	Nil	

3j	Provision of drilling and blasting in mineral benches	Yes	1 Atlas Copco Drill machine with 83 mm dia is deployed in the mine. Blasting is being done by small dia Slurry explosives. Spacing X Burden X Depth is around 3.0 m X 1.2 m X 6.0 m and powder factor is around 7.5 T/kg.
3k	Provision of mining machineries in mineral benches	Yes	Drilling is done by 83 mm dia Atlas Copco Drill Machine. Excavation is being done by One L&T Backhow with 1.2 cuM capacity and One JCB having 0.3 cuM capacity. For transportation of Ore, four Dumpers of AMW make with capacity of 16 T are deployed in the mine.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes.	Yes. Bench height is 6.0 m which is suitable as per the Category of the Mine as 'A-Others' (semi-mechanized workings).
3m	Total area covered under excavation/pits	2.60 ha	2.60 ha
3n	Ore to OB ratio for the pit/mine during the year.	1:0.2	1:0.12
3o	Total area put in use under different heads at the end of year	Area under: Pits-2.60 ha Mineral Storage-1.30 ha OB dumps-2.20 ha Others-0.80 ha Total-6.90 ha	Area under: Pits-2.00 ha Mineral Storage-0.40 ha OB dumps-2.20 ha Others-0.80 ha Total-5.40 ha
3p	Production of ROM mineral during the last five year period as applicable	2015-16: 33600 T 2014-15: 33600 T 2013-14: 33600 T 2012-13: No proposals 2011-12: No proposals	2015-16: 21272 T 2014-15: 11227 T 2013-14: 1284 T 2012-13: 46235 T 2011-12: 14722 T

3q	General remarks of inspecting officers on method of mining etc.	Method of mining is Semi-Mechanized which is suitable as per the production levels, as per the mechanization and capital investments made in the area.
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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)	Not applicable.	Nil, only waste/ OB is present and is being dumped.	There is no top soil in the area. top surface is mainly Laterite and Limonite with very less soil which can not be seggregated. OB or Waste generated is being dumped and rejects generated in form of fines while crushing and screening of ROM are stacked near the crusher.
4b	Location of topsoil, OB and mineral reject dumps	OB/ Waste dumps: 3 dumps at Grid locations N100 to N250 & W150 to W50, N50 to N150 & W150 to E50, S100 to S50 & W200 to W50 (One dump in the southern side of pit and two dumps in the northern side) Fines Dumps near crusher in South-East side of the lease	As per the proposals	
4c	Number of dumps within lease area and outside of lease area	Three Waste dumps and one fines stack all within lease area	As per the proposals	

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	One waste dump within pit limits	One waste dump located in the southern side of the pit which is hangwall is within pit limits.	It was advised to re-handle the waste dump for systematic development.
4e	Number of active and alive dumps.	All dumps are active	All dumps are active	
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.	Yes	Yes, retaining wall and garland drains are there but not all along the dump. Also constructed retaining wall and garland drains require maintenance.	Lessee was advised to take proper measures.
4i	Length of Retaining wall or garland drain all along dumps	500 m	Around 250-300 m.	
4j	Number of settling ponds	Nil	Nil	
4k	Specific comments of inspecting officer on waste dump management			Waste dump management in the area is not up to the mark as northern side dump needs terracing. Also, Garland drains and retaining walls need to be constructed and repaired regularly. Further, One waste dump located within pit limits need to be re-handled and shifted to footwall side.

Solid Waste Management - Backfilling:

Sl.No.	Item	Proposals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No such proposals	Nil	The area is proposed for backfilling with waste after exhaustion of mineral at conceptual stage.
5b	Area under backfilling of mined out area	No such proposals	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No such proposals	Nil	
5d	Total area fully reclaimed and rehabilitated	No such proposals	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			The area is proposed for backfilling with waste after exhaustion of mineral at conceptual stage. But mineral exhaustion can be proved and backfilling of waste into pit can only be approved after the detailed exploration in the lease area.

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).	Yes	Yes	
6b	Area available for rehabilitation (ha) .	Nil	Nil	
6c	afforestation done (ha).	0.60 ha	0.60 ha	

6d	No. of saplings planted during the year	100	100	Though saplings planted were as per the proposals but survival rate was very low at around 25%. Mine was not in operations since Sept'2017 hence some plantation done has not survived. It was advised to take necessary steps for improvement in survival as well as covering the backlog in future proposals.
6e	Cumulative no .of plants	500 Nos. approximately	200-250 Saplings	Due to low survival and lack of nutritious soil and also due to lack of proper care.
6f	Any other method of rehabilitation	No such proposals	Nil	
6g	Cost incurred on watch and care during the year	Rs 1 lakh for plantation and environment monitoring	Rs 5000 over plantation	Mine is not under operation from Sept'17 onwards.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D	No such proposals	Nil	The area is proposed for backfilling with waste after exhaustion of mineral at conceptual stage.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No such proposals	Nil	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No such proposals	Nil	

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No such proposals	Nil	
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No such proposals	Nil	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No such proposals	Nil	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No such proposals	Nil	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No such proposals	Nil	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes	No environment monitoring has been done.	Mine is not under operation from Sept'17 onwards. It was advised to carry out environment monitoring in core and buffer zones as per the guidelines of MoEFCC.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Under PMCP work, only plantation has been done for the year. Garland drains and retaining walls need maintenance. More thrust is needed towards PMCP work and lessee was advised to carry out PMCP operations as per the proposals.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade-wise sorting and dispatch	As per the proposals	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	One crusher of 144 TPH capacity is installed for crushing the ROM and then screened material 20-80mm is sorted and cleaned ore. Rest 5% contains waste and 5% is fines of -6mm size having Fe less than 45%.
7c	Different grade of mineral sorted out at mines.	Lumps 55-58% Fe Fines below 55% Fe Fines 55-58% Fe	As per the proposals	
7d	Any beneficiation process at mines .	No beneficiation except mechanical crushing and screening	As per the proposals	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Ore occuring in the area is Magnetite. Ore content of the ROM is being fully consumed. further, generated fines which has low Fe content (less than threshold) are stacked near the crusher and may be utilized in future as per the demand. Overall mineral conservation aspect is satisfactory for the lease area.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	Not applicable as no top soil present	Nil	
8b	Concurrent use or storage of topsoil	Not applicable	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes		Separate dumps for OB/Waste and Fines are present at the site.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposals	Nil	The area is proposed for backfilling with waste after exhaustion of mineral at conceptual stage.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposals for pit. Waste dumps are active and upon reaching maturity, it shall be stabilized through plantation.	Nil	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Yes	Yes	
8g	Survival rate		25%	Though saplings planted were as per the proposals but survival rate was very low at around 25%. It was advised to take necessary steps for improvement in survival as well as covering the backlog in future proposals.
8h	Water sprinkling on roads to control airborne dust	Yes	Yes	

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Apart from normal degradations due to mining operations, aesthetic beauty in and around the area is satisfactory. Mine is not under operation from Sept'17 onwards.
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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		Submission of Monthly and Annual returns are up to date and returns have been found submitted online.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer: Sher Bahadur Singh Geologist: Nil Manager: Nil	It was informed that due to not under operation, Geologist and Manager are not reported. Appointment shall be made prior to start of operations in the mine.	Advise letter is being issued to the state govt. as per Rule 45(7) of MCDR'2017.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.		Incorrect information furnished as same area has been mentioned under abandoned as well as pits.	Spot guidance provided for the same.
9d	Scrutiny of Annual return on afforestation	100 saplings with 25% survival	Correct	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)		Incorrect information furnished.	Advise letter is being issued to the state govt. as per Rule 45(7) of MCDR'2017.

9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM: Opening Stock-1053 T, Production-24334 T, Closing Stock-1801 T Graded Ore: Lumps-55% to 58% Fe- OS-14 T, Production-2307 T, Dispatch-1137 T, Closing Stock-1184 T Fines-Below 55% Fe- OS-1032 T, Production-22027 T, Dispatch-22449 T, Closing Stock-610 T Fines- 55% to 58% Fe- OS-7 T, Production & Dispatch- Nil, Closing Stock-7 T	Correct	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale Value: Lumps- 55% to 58% Fe- Rs 3290018/- Fines- Below 55% Fe- Rs 24217648/- Ex-mine Price (per T): Lumps- 55% to 58% Fe- Rs 2897/- Fines- Below 55% Fe- Rs 1079/- Cost of Production (per T): Rs 737/-	Correct	
9h	Scrutiny of Annual return on fixed assets	Not furnished	Incomplete return	Advise letter is being issued to the state govt. as per Rule 45(7) of MCDR'2017.

9k	Scrutiny of Annual return on mining machineries	Except crusher, details for other machineries deployed in the mine not furnished	Incomplete	Advise letter is being issued to the state govt. as per Rule 45(7) of MCDR'2017.
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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

Date :

(ASHISH MISHRA)

Indian Bureau of Mines