

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON-MN/SNG/MCDR-13/BBS

Mine code : 30ORI13036

- (i) Name of the Inspecting : **M007**) **SHRI HARKESH MEENA**
Officer and ID No.
- (ii) Designation : Regional Controller Mines
- (iii) Accompanying mine : Shri D Patel, Mines Manger and Shri S C Mohanty, Geol
Official with
Designation
- (iv) Date of Inspection : 09/07/2017
- (v) Prev.inspection date : 24/04/2015

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **NARAYANPOSHI**
- (b) **Registration NO.** : **IBM/5865/2011**
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : SUNDARGARH
- Village : NARAYANPOSHI
- Taluka : BARBIL
- Post office : KOIRA
- Pin Code :
- FAX No. : 03322364602
- E-mail : contact@aryannmining.in
- Phone : 03322364601
- (f) Police Station : KOIRA
- (g) First opening date : 03/02/1945
- (h) Weekly day of rest : SAT
2. Address for : NARAYANPOSI IRON MINE OF A.M.TC.
correspondance AT/PO-KOIRA
DIST-SUNDERGARH
3. (a) Lease Number : ORI0124
- (b) Lease area : 349.25
- (c) Period of lease : 20
- (d) Date of Expiry : 01/02/2005
4. Mineral worked : MANGANESE ORE Associated
IRON ORE Main

5. Name and Address of the

Lessee : M/S A.M.T.C.(P) Ltd.
 61,Strand Road KOLKATA
 WEST BENGAL
 Phone:
 FAX :

Owner : PRADEEP KUMAR SARAF
 M/S AMTC LTD KOLKATA, WEST
 BENGAL SUNDARGARH ORISSA
 Phone: 033 - 2395661
 FAX :

Mining Engineer

Name : D.PATEL,Full Time
 Qualification : DEGREE IN MINING
 Appointment/ : 16/08/2013
 Termination date

Geologist

Name : S. C. MOHANTY,Full Time
 Qualification : MSC GEOLOGY
 Appointment/ : 16/03/2009
 Termination date

Manager

Name : D.PATEL
 Qualification : DEGREE IN MINING
 Appointment/ : 10/10/2007
 Termination date

6. Date of approval of Mining	:	Modif.approved Mining Scheme	06/01/2004
Plan/Scheme of Mining		Renewal under rule 22 MCR1960	20/05/2004
		Modif.of approved Mining Plan	23/09/2008
		Modif.of approved Mining Plan	10/07/2009
		Mining Scheme rule 12 MCDR1988	29/04/2010
		Modif.approved Mining Scheme	25/10/2011
		Mining Scheme rule 12 MCDR1988	27/03/2015
		Modif.approved Mining Scheme	02/06/2016

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nos. of bore holes proposed for drilling in 2016-17 was 14 nos.	All the 14 nos. of boreholes have been drilled by lesse during 2016-17.	
1b	Exploration over lease area for geological axis 1 or 2		Exploration under G1 limit of UNFC is over 275.167 Ha Exploration under G2 limit of UNFC is over 74.087 Ha Total area explored under G1 & G2 limit of Exploration is 349.254 Ha	Entire Mining lease area over 349.254 ha has been explored under G1 & G2 limit of UNFC
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not Proposed	In 2016-17, Exploration Agency-Orewin Engineers Pvt. Ltd., Rs 72.79 Lakhs expenditure incurred.	
1d	Balance area to be explored to bring Geological axis in 1 or 2		Nil	Entire lease area of 349.254 Ha has been explored under G1 & G2 limit of UNFC.
1e	Balance reserve as on 01/04/20		Reserve & Resource as on 01.04.2017 is (A). Iron Ore- Proved Mineral Reserve (111): 21210927 MT Probable Mineral Reserve (122): 160797984 MT (B). Mn Ore- Probable Mineral Reserve (122): 530962 MT	Remaining Iron Ore Resources is 12840144 MT Reamining Managanese Resources is 7880 MT

1f General remarks
of inspecting
officers on
geology,
exploration etc

There is no
backlog of
exploration as per
proposal in scheme
of mining. The
entire lease area
over 349.254 Ha
has been explored
under G1 & G2
limit of UNFC.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	<p>Development proposed for Iron ore in Quarry Q-3,Q-4,Q-RF & for Manganese Ore in Q-5 Quarry. Details</p> <p>Q-3: B-1- 589-585 mRL B-2- 585-576 mRL B-3- 576-567 mRL B-4- 567-558 mRL B-5- 558-549 mRL Q-4: B-1- 599-594 mRL B-2- 594-585 mRL B-3- 585-576 mRL B-4- 576-567 mRL B-5- 567-558 mRL B-6- 558-549 mRL Q-RF: B-1- 630-621 mRL B-2- 621-612 mRL B-3- 612-603 mRL Q-5Mn: B-1: 558-552 B-2: 552-546 B-3: 546-540</p>	<p>Actual development work for Iron ore carried out in Q-3 & Q-4 quarry and for Manganese in Q-5 Quarry</p> <p>Details as on-1.4.2017</p> <p>Q-3: B-1- 595-590 B-2-590-581 B-3-581-572 B-4-572-565 B-5-565-556 B-6-556-550</p> <p>Q-4: B-1- 599-592 B-2-592-588 B-3-588-579 B-4-579-570 B-5-570-561 B-6-561-552</p> <p>Q-RF: No Development</p> <p>Q-5Mn: B-1: 559-553 B-2:553-549 B-3:549-546 B-4:546-542</p>	<p>During inspection it has been observed that the benches in Quarry 3 have not been developed as per development plan for the year 2017-18. Bench1: 590mRL to 583mRL, Bench2: 583mRL to 565mRL, Bench3: 565mRL to 549mRL</p> <p>Bench Geometry of 9m height and 12m width has not been maintained in Quarry 3. The shortcomings have been pointed out to lessee by violation letter dated 26.07.2017.</p>
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2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Iron Quarry- 6 benches in ore- Details area as follows. Q-3: B-1- Ore & OB B-2- Ore B-3- Ore B-4- Ore B-5- Ore B-6- Ore Q-4: B-1- Ore & OB B-2- Ore B-3- Ore B-4- Ore B-5- Ore B-6- Ore Q-4: B-1- Ore & OB B-2- Ore B-3- Ore B-4- Ore B-5- Ore B-6- Ore Q-5Mn: B-1- OB B-2-Ore B-3-Ore B-4-Ore B-6- Ore Q-RF: B-1- OB B-2-Ore B-3-Ore Mn Quarry- 1bench in OB & 3 benches in Ore- Q-5Mn: B-1- OB B-2-Ore B-3-Ore	Iron Quarry- 6 no benches in ore Q-3: B-1- Ore & OB B-2- Ore B-3- Ore B-4- Ore B-5- Ore B-6- Ore Q-4: B-1- Ore & OB B-2- Ore B-3- Ore B-4- Ore B-5- Ore B-6- Ore Mn Quarry- 1bench in OB & 3 benches in Ore Q-5Mn: B-1- OB B-2-Ore B-3-Ore B-4-Ore B-6- Ore Q-RF: B-1- OB B-2-Ore B-3-Ore Mn Quarry- 1bench in OB & 3 benches in Ore- Q-5Mn: B-1- OB B-2-Ore B-3-Ore
2c	Stripping ratio or ore to OB ratio	1:0.196 for Iron Ore 1:12.813 for Mn ore	1 : 0.268 for Iron ore 1: 22.53 for Mn ore

2d	Quantity of topsoil generation in m3	Removal-2250m ³	Removed-294m ³ Utilized -294 m ³	Cumulative Qty: Generated- 2159.60 m ³ Utilized-801 m ³ Balance- 1358.60 m ³
2e	Quantity of overburden generation in m3	588886 m ³ at Iron ore Zone & 209595 m ³ at Mn ore zone	402277.26 m ³ at Iron ore zone & 39493.19 m ³ at Mn Ore Zone	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Iron ore excavation has been carried out from three pits. Q-RF for iron ore was not developed as per the proposal for 2016-17. During inspection it has been observed that the benches in Quarry 3 have not been developed as per development plan for the year 2017-18. Bench1: 590mRL to 583mRL, Bench2: 583mRL to 565mRL; Bench3: 565mRL to 549mRL.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Total Pit proposed for production was 04. For Iron Ore 03 pits (namely Q-3, Q-4 & RF Block) and Managanese ore Q5 quarry	Actual No of Pit put for production was 04. For Iron Ore 02 pits (namely Q-3, Q-4) and Managanese ore Q5 quarry	Excavation for Iron ore has been carried out from three pits. RF-Block has not been developed as per the proposal for the year 2016-17

3b	Quantity of ROM mineral production proposed	Proposal for 2016-17:- 6000564 MT- Iron ore 35986.72MT - Mn ore	Actual Production in 2016-17 is: 2995326.70MT- Iron ore 3856.346 MT - Mn ore	Production restricted within 3 Million Ton in accordance with EC limit (3.0 MTPA for Iron ore and 0.036MTPA for Manganese ore).
3c	Recovery of sailable/usable mineral from ROM production	Iron ore: 76% & 90% for Manganese Ore	Iron ore: 94% & 100% for Manganese Ore	
3d	Quantity of mineral reject generation	Proposal for 2016-17:- Iron ore 1465254MT; Mn ore - 3598.672MT	Actual generation of mineral reject in 2016-17 is :Iron- 188956.52 MT & Mn- Nil	The ore stack area of fines has extended beyond the approved limit in Quarry-3 as per development plan for 2017-18. The shortcomings have been pointed out to lessee by violation letter dated 26.07.2017.
3e	Grade of mineral rejects generation and threshold value declared.	>45% Fe & < 58%Fe >10% Mn & < 20%Mn	Iron-55% Fe to 57.99 % Fe	
3f	Quantity of sub grade mineral generation.		Quantity of sub grade mineral generated in 2016-17 in iron ore fines between 55% Fe to below 58% Fe is 188956.52 MT.	The ore stack area of fines has extended beyond the approved limit in Quarry-3 as per development plan for 2017-18. The shortcomings have been pointed out to lessee by violation letter dated 26.07.2017.

3g	Grade of sub grade mineral generation	Mn Ore: Mn% :+ 10 -20 Iron Ore: Fe% :+ 45 -57.99	Mn Ore: Nil Iron Ore: + 55 -57.99 %	Sub-grade mineral blended and despatched. The subgrade or mineral reject stack register along with grade is not maintained properly and not made available during inspection.
3h	Manual / Mechanised method adopted for segregating from ROM	For Iron Ore- Crushing, Screening & Manual Breaking, sorting & sizing For Mn Ore- Manual Breaking, sorting & sizing	For Iron Ore- Crushing, Screening & Manual breaking, sorting & sizing For Mn Ore- Manual Breaking, sorting & sizing	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	It has been proposed to establish a beneficiation plant of 2.0 MTPA capacity during the financial year 2017-18 to upgrade the iron ore and teh beneficiation plant shall be operation in 2017-18.	Beneficiation plant is yet to be installed.	Beneficiation plant is yet to be installed.
3j	Provision of drilling and blasting in mineral benches	115mm dia DTH drill will be utilized for drilling with burden 3m & spacing 3.5m	115mm dia DTH drill will be utilized for drilling with burden 3m & spacing 3.5m	

3k	Provision of mining machineries in mineral benches	Excavation to be practised through shovel and dumper combination at benches.	Excavation to be practised through shovel and dumper combination at benches.		
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	For Iron-Bench Height- 9m Q-3: B-1- 589-585 B-2- 585-576 B-3- 576-567 B-4- 567-558 B-5- 558-549 Q-4: B-1- 599-594 B-2- 594-585 B-3- 585-576 B-4- 576-567 B-5- 567-558 B-6- 558-549 Q-RF: B-1- 630-621 B- 2-621-612 B- 3-612-603 For Mn- 6m Q-5Mn: B-1- 558-552 B-2-552-546 B-3-546-540	For Iron Ore - Q-3: B-1- 595-590 B-2-590-581 B-3-581-572 B-4-572-565 B-5-565-556 B-6-556-550 Q-4: B-1- 599-592 B-2-592-588 B-3-588-579 B-4-579-570 B-5-570-561 B-6-561-552 Q-RF: No Development For Mn- Q-5Mn: B-1- 559-553 B-2-553-549 B-3-549-546 B-4-546-542 The shortcoming have been pointed out to lessee by violation letter dated 26.07.2017.	As noticed on the date of inspection, the proposal given in the SOM has not been implemented properly in the mine. Details as on (01.04.2017) Q-3: B-1- 590-583 B-2-583-565 B-3-565-549 Q-4: B-1- 604-597 B-2-597-591 B-3-591-581 B-4-581-571 B-5-571-563 B-6-563-552 Q-RF: B-1- 630-621 B-2-626-624 Q-5Mn: B-1- 559-553 B- 2-553-549 B- 3-549-546 B- 4-546-542	
3m	Total area covered under excavation/pits	65.012Ha (up to end of scheme period)	44.035 Ha (upto 31.03.2017)		
3n	Ore to OB ratio for the pit/mine during the year.	1:0.196 for Iron Ore 1:12.813 for Mn ore	1 : 0.268 for Iron ore 1: 22.53 for Mn ore		

3o	Total area put in use under different heads at the end of year	191.907 Ha. up to end of scheme period Mining 65.012 Ha Mineral storage 31.66 ha Mineral Beneficiation plant 11.88 ha Roads 16.12 ha Infrastructure (Workshop, administrative building etc.) 0.16 ha building etc.) 7.50 ha OB/waste dump 7.405 ha Top soil preservation 0.73 ha Others 51.60 ha Total area put to use 191.907 ha	143.345Ha up to 31.03.2017 Mining 44.035 ha Mineral storage 21.753 ha Mineral Beneficiation plant 7.50 ha Roads 15.72 ha Infrastructure (Workshop, administrative building etc.) 5.00 ha OB/waste dump 4.725 ha Top soil preservation 0.16 ha Others 44.452 ha Total area used 143.345 ha
3p	Production of ROM mineral during the last five year period as applicable	Iron ore- FY-2015-16- 5035696MT FY-2014-15- 3969330MT FY 2013-14: 3969330MT FY 2012-13: 5670133MT FY 2011-12: 5188904MT Mn ore- FY 2015-16- 10373MT FY-2014-15- 39621MT FY 2013-14: 13663MT FY 2012-13: 33119MT FY 2011-12: 26426MT	Iron ore- FY-2015-16- 2997270.46MT FY-2014-15-833472.667MT FY 2013-14: 2792970.963MT FY 2012-13: 1146433.305MT FY 2011-12: 2419543MT Mn ore- FY 2015-16- Nil FY-2014-15- Nil FY 2013-14: 1831.92MT FY 2012-13: 1140.092MT FY 2011-12: 2881.561MT

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

Total nos. of pits
put production is
3 Nos except RF
Block. Production
of Iron and
Manganese ore is
within the EC
limit. Area for
excavation is
within the
approved limit as
per proposal.
However, during
inspection it has
been observed that
the benches in
Quarry 3 have not
been developed as
per development
plan for the year
2017-18. Bench1:
590mRL to 583mRL
Bench2: 583mRL to
565mRL, Bench3:
565mRL to 549mRL.
Bench Geometry of
9m height and 12m
width has not been
maintained in
Quarry 3.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	The topsoil, OB and mineral rejects to be dumped separately.	The topsoil, OB and mineral rejects have been dumped separately.	

4b	Location of topsoil, OB and mineral reject dumps	0.16 Ha area is earmarked for stacking of Top soil Dump-1 will be extended towards NW at 15m average height. E/W-1101-1296, N/S-5362-5535. Dump-2 will be extended. E/W-18-239, N/S-3750-3928 One more new Dump-3 will be created. E/W-188-286 N/S-3253-3359	Topsoil- has been stacked in the earmarked area as per approved SOM. Dump-1(Iron Section) has been extended laterally towards NW at a height of 15m. E/W-1100-1295, N/S-5368-5513 Dump-2(Mn section) One more terracing has been done over Dump-2 at a height of 10m. E/W-18-239, N/S-3750-3928 Dump-3- No Development	(a). Dump-3 has not been created as proposed. (b).The ore stack area of fines has extended beyond the approved limit in Quarry-3 as per development plan for 2017-18
4c	Number of dumps within lease area and outside of lease area	03- within lease area	02 dumps (Dump-1 & Dump-2) are located within the lease area.	Dump-3 has not been created as proposed.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dumps are proposed to be outside the UPL.	Dumps developed are outside the UPL in accordance with the approved SOM.	
4e	Number of active and alive dumps.	03nos Dump-1:E-1101-1296, N-5362-5535 Dump-2:E-18-239, N-3750-3928 Dump-3:E-188-286, N-3253-3359	02 nos Dump-1: E-1100-1295, N-5368-5513 Dump-2: E-18-239, N-3750-3928	Dump-3 has not been created as proposed.
4f	Number of dead dumps.	Not proposed	NIL	

4g	Number of dumps established.	Not Proposed	Part of OB dump-1 covering an area over 0.513 Ha is stabilized by grass pitching & plantation. Part of OB dump-2 covering an area over 0.652 Ha is stabilized by way of coir matting and grass patching.
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall and garland drains are to be constructed around the dumps	Retaining wall and garland drains have been constructed around the dumps. Wash offs are channelized through settling ponds and check dams.
4i	Length of Retaining wall or garland drain all along dumps	240m Retaining wall around the dump-1, 230m Retaining wall around the dump-3 and 250m garland drains are to be constructed around the dump-1 & 300m garland drains around the dump-1.	280m Retaining wall and 266m garland drains around the dump-1 and 110m retaining wall around top soil stack has been constructed.
4j	Number of settling ponds	01 no of settling ponds around new dump-3	04 nos of settling ponds have been constructed.

4k	Specific comments of inspecting officer on waste dump management	There are separate OB and MR dumps. All dumps are outside the UPL. Protective measures such as retaining wall and garland drain are there all along the dumps. Part of OB dump-1 covering an area over 0.513 Ha is stabilized by grass pitching & plantation. Part of OB dump-2 covering an area over 0.652 Ha is stabilized by way of coir matting and grass patching. Waste dump management has been done 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.	Backing will be done in the exhausted part of the Quarry-3	Backfilling has been done in the exhausted part of Quarry-3.	
5b	Area under backfilling of mined out area	3.82Ha	3.64Ha	Backfilling has been carried out at exhausted part of Q-3.The ongoing backfilling in Quarry-3 has extended beyond the approved limit as per the development plan for 2017-18

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not Proposed	Not Applicable	
5d	Total area fully reclaimed and rehabilitated	Not Proposed	Not Applicable	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Backfilling has been carried out at exhausted part of Q-3.

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 on PMCP under Rule 23(2) has been submitted.	
6b	Area available for rehabilitation (ha) .	3.82Ha of Q-3 will be back filling in FY-2016-17	3.64Ha of Q-3 has been back filled in the FY-2016-17	
6c	afforestation done (ha).	1.20 Ha area	About 4.00 Ha.	
6d	No. of saplings planted during the year		22242nos saplings planted inside lease area and 200 nos sapling planted outside lease area	A cumulative of 147301 nos of sapling have been planted inside the lease and 63729 nos of sapling planted outside the lease area.
6e	Cumulative no .of plants		Cummulative nos. of saplings planted within mining lease area is 147301 nos.	
6f	Any other method of rehabilitation	Not proposed	Not Applicable	

6g	Cost incurred on watch and care during the year	Not proposed	1.44 Lakhs
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	3.82Ha of Q-3 will be back filling in FY- 2016-17	3.64Ha of Q-3 has been back filled in the FY- 2016-17
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not Proposed	Not Applicable
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Not Proposed	Not Applicable
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not proposed	Not Applicable
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not proposed	Not Applicable
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not proposed	22242 saplings planted as gap filling and fresh area used is about 4.00 Ha.

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not proposed	4 Ha	
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)	Air, noise, surface water and ground water analysis are proposed to be done	Ambient Air monitoring is conducted twice in a week, Monitoring and analysis of surface water and noise are carried out on monthly basis. Monitoring of Ground water quality and fluctuation is being carried out quarterly	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			PMCP compliace is as per proposal.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM ore raised from the mines are to be marketed to the consumers after crushing, screening, sizing and blending.	ROM Iron ore raised from the mines have been processed through mechanical crushing, screening and manual breaking, sizing and stockpiled based on size and grade and marketed to the consumers based on the demand. The mineral reject after suitable blending are also marketed. ROM Mn ore are processed manually through sorting, sizing, blending and stockpiled based on size and grade and are marketed.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual & Mechanical	Manual & Mechanical	
7c	Different grade of mineral sorted out at mines.		For Iron Ore- 55% to below 58% 60% to below 62% 62% to below 65% For Mn Ore- 25% to below 35% 35% to below 46%	
7d	Any beneficiation process at mines	Not Proposed for 2016-17.	Not Applicable	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Subgrade fines produced has been blended and dispatched.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	Top soil will be scrapped off, collected and stored.	294m ³ removed and utilised for plantation.
8b	Concurrent use or storage of topsoil	Top soil will be scrapped off, collected and stored.	Top soil has been scrapped off and utilized during this year.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumps for overburden and fines are proposed.	<p>The overburden has been stockpiled over OB dump- 1 & 2 as per the approved proposal with locations-</p> <p>Dump-1: E-1100-1295, N-5368-5513</p> <p>Dump-2: E-18-239, N-3750-3928</p> <p>The mineral rejects/ fines have been stockpiled at separate stacks with locations-</p> <p>Central Stockyard: E-1114-1380, N-4382-4596</p> <p>Q-3 Bottom: E-1661-1793, N-5227-5306</p> <p>Near Fixed Crusher: E-1013-1190, N-5194-5380</p> <p>Stock No-1A :E-713-750, N-5234-5298</p> <p>Stock No-1B : E-645-706, N-5166-5224</p>
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	OB is to be dumped over the Waste Dump & will be used for construction & repair of road, back filling.	OB generated during mining has been used for backfilling of exhausted part of Q-3, construction & repair of haul road and the rest is dumped over Dump-1 & 2.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not Proposed	Not Applicable

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	1.25Ha area proposed to be planted by native species with 3125saplings	22242 saplings planted as gap filling and fresh area used is about 4.00 Ha.	
8g	Survival rate	Not Proposed	65%	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling proposed to be done by Mobile water tanker & fixed sprinkler	Water sprinkling is being carried out by mobile water tanker & fixed sprinklers.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Top soil is removed and used for plantation purpose. Separate OB, MR dumps are maintained. Aesthetic beauty in and around mines is maintained.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly Return has been submitted up to March 2017 Annual Return for the FY 2016-17 has been submitted.	Monthly Return has been submitted up to March 2017 Annual Return for the FY 2016-17 has been submitted.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Graduate Mining Engineer: 5 Diploma Mining Engineer: 6 Geologist: 3 Surveyor: 2	Graduate Mining Engineer: 5 Diploma Mining Engineer: 6 Geologist: 3 Surveyor: 2	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under current(O/C) working: 114.890 ha Used for waste disposal : 4.725 ha Occupied by plant, building, residential, welfare buildings & roads: 11.30 ha Other purpose (used for green belt, public road etc) : 35.957 ha	Covered under current(O/C) working: 114.890 ha Used for waste disposal : 4.725 ha Occupied by plant, building, residential, welfare buildings & roads: 11.30 ha Other purpose (used for green belt, public road etc) : 35.957 ha
9d	Scrutiny of Annual return on afforestation	No of trees planted during the year within lease area is 22242 nos. No of trees planted during the year outside lease area is 5750 nos.	No of trees planted during the year within lease area is 22242 nos. No of trees planted during the year outside lease area is 5750 nos.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	188957MT, Grade: +55 to below 58 % Fe	188957MT, Grade: +55 to below 58 % Fe

9f	Scrutiny of Annual return on ROM stock and/or graded ore	Graded (Iron Ore) Closing Balance Below 55% Fe 1341388.133 55% to below 58% Fe 91771.210 58% to below 60% Fe 1990.370 60% to below 62% Fe 368607.18 62% to below 65% Fe 208822.13 Grade (Mn Ore) Closing Balance Below 25% Mn 16.275 25% to below 35% Mn 890.750 35% to below 46% Mn 1069.886 46% Mn and above 24.116	Graded (Iron Ore) Closing Balance Below 55% Fe 1341388.133 55% to below 58% Fe 91771.210 58% to below 60% Fe 1990.370 60% to below 62% Fe 368607.18 62% to below 65% Fe 208822.13 Grade (Mn Ore) Closing Balance Below 25% Mn 16.275 25% to below 35% Mn 890.750 35% to below 46% Mn 1069.886 46% Mn and above 24.116
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9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Grade Ex- mine Price (Rs/tonne) Below 55% Fe (Fines) 398.00 55% to below 58% Fe (Fines) 437.00 60% to below 62% Fe(Fines) 825.00 60% to below 65% Fe(Fines) 1030.00 60% to below 62% Fe(lumps) 1232.00 62% to below 65% Fe (lumps) 2019.00 Below 25% Mn: 3000.00 25% to below 35% Mn 4166.00 35% to below 46% Mn 5782.00 46% Mn and above 14500.00	Grade Ex- mine Price (Rs/tonne) Below 55% Fe (Fines) 398.00 55% to below 58% Fe (Fines) 437.00 60% to below 62% Fe(Fines) 825.00 60% to below 65% Fe(Fines) 1030.00 60% to below 62% Fe(lumps) 1232.00 62% to below 65% Fe (lumps) 2019.00 Below 25% Mn: 3000.00 25% to below 35% Mn 4166.00 35% to below 46% Mn 5782.00 46% Mn and above 14500.00
9h	Scrutiny of Annual return on fixed assets	Value of Fixed assets (in Rs.) 78099929.00, (in respect of the mine, beneficiation plant, work-shop, power and water installation	Value of Fixed assets (in Rs.) 78099929.00, (in respect of the mine, beneficiation plant, work-shop, power and water installation

9k Scrutiny of Backhoe: 24 Backhoe: 24 nos; Dumper:
Annual return on nos; Dumper: 48 Nos; Front End
mining 48 Nos; Front loaders: 12
machineries End loaders: Nos;Blasthole drill: 2
12 Nos etc.
Nos;Blasthole
drill: 2 Nos
etc.

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
MCDR17	Rule 11(1)	26/07/2017	27/10/2017		
MCDR17	Rule 54(c)	26/07/2017	27/10/2017		

Date :

(SHRI HARKESH MEENA)

Indian Bureau of Mines