

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

**MCDR inspection REPORT**

**Kolkata regional office**

**Mine file No :** KOL/JHK/SB(W)/FE(V-1)

**Mine code :** 30JHK18015

- (i) Name of the Inspecting : **K004** ) **B.P KERKETTA**  
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri M. B. Singh, Mines Agent  
Official with  
Designation
- (iv) Date of Inspection : 31/10/2017
- (v) Prev.inspection date : 19/09/2015

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **VIJAY - II IRON ORE MINE**
- (b) **Registration NO.** :
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address  
State : JHARKHAND  
District : SINGHBHUM (WEST)  
Village : GHATKURI  
Taluka : NOAMUNDI  
Post office : BARAJAMADA  
Pin Code : 833221  
FAX No. :  
E-mail : VIJAYIIMINES@GMAIL.COM  
Phone :
- (f) Police Station :
- (g) First opening date : 16/08/2005
- (h) Weekly day of rest :
2. Address for :  
correspondance
3. (a) Lease Number : JHK0047  
(b) Lease area : 155.08  
(c) Period of lease : 20  
(d) Date of Expiry : 17/08/2025
4. Mineral worked : IRON ORE Main

## 5. Name and Address of the

Lessee : USHA MARTIN LTD.  
 MINES & MINERAL DIVISION  
 GYMKHANA CLUB COMPLEX  
 DIPATOLI, RANCHI RANCHI  
 JHARKHAND  
 Phone:0651-23091337  
 FAX :

## Mining Engineer

Name : RAMASHISH KUMAR,Full Time  
 Qualification : DEGREE IN MINING ENGINEERING  
 Appointment/ : 13/07/2018  
 Termination date

## Mining Engineer

Name : SURESH KUMAR JENA,Full Time  
 Qualification : DEGREE IN MINING ENGINEERING  
 Appointment/ : 13/07/2018  
 Termination date

6. Date of approval of Mining	:	Modif.of approved Mining Plan	06/01/2009
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	20/08/2010
		Modif.approved Mining Scheme	14/06/2013

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year		Completed	During the year 2016-17
1b	Exploration over lease area for geological axis 1 or 2	30 BH proposed	31 BH completed	
1c	Exploration Agencies and Expenditure in lakh rupees during the year		United Exploration India Pvt LTD & expenditure cost on drilling Rs 46.6Lakhs.	
1d	Balance area to be explored to bring Geological axis in 1 or 2		75.10117 Ha.	
1e	Balance reserve as on 01/04/20	Reserve as per approved mining plan as on 01/04/2017 Reserves - 23410000 tons resources - 17350000 tons.	Reserve as on 01/04/2017 Reserves - 23410000 tons resources - 17350000 tons.	
1f	General remarks of inspecting officers on geology, exploration etc		Mining is carried out as per approved Scheme of mining as far as possible.	

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Query 1 E/W 30506.63, 29937.62 N/S 54385.85 ,53700.43 Query 2 E/S 29709.16, 29471.54 N/S 53230.75, 52714.72	Query 1 E/S 30505.10, 29957.01 N/S 54382.65, 53701.11 Query 2 E/S 29655.66 , 29382.31 N/S 53229.50, 52788.85	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Overburden -1 Ore - 5	Overburden -1 Ore - 5	

2c	Stripping ratio or ore to OB ratio	1: 0.11	1: 0.1	
2d	Quantity of topsoil generation in m3	267m <sup>3</sup>	1348.01 m <sup>3</sup>	During this year new face has been developed.
2e	Quantity of overburden generation in m3	271186 m <sup>3</sup>	120178.29 m <sup>3</sup> during the year till Sep. 17	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		Mining is carried out as per approved Scheme of mining as far as possible.	

#### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2 Pit	2Pit	
3b	Quantity of ROM mineral production proposed	2.5Million Tonne	2.49million tonne	
3c	Recovery of sailable/usable mineral from ROM production	Captive use only	Captive use only	
3d	Quantity of mineral reject generation	0.00	0.00	
3e	Grade of mineral rejects generation and threshold value declared.	NA	NA	
3f	Quantity of sub grade mineral generation.		No separate stack	Final production is being produced after blending with low grade and high grade.
3g	Grade of sub grade mineral generation	45%Fe to 55%Fe	45%Fe to 55%Fe	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Yes	Yes	Beneficiation plant installed at Gamharia Plant.
3j	Provision of drilling and blasting in mineral benches	Yes	Yes	
3k	Provision of mining machineries in mineral benches	Yes	Yes	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes	
3m	Total area covered under excavation/pits	58.08ha	31.0252 ha	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.11	1:0.10	
3o	Total area put in use under different heads at the end of year			Mining Area Q1- 19.4443 ha Mining Area Q2-11.5809 ha. Dump Area- 1.6 ha. Including mining. Infrastructure (Workshop, office) 1.103 ha. Included in 23.6878 ha.
3p	Production of ROM mineral during the last five year period as applicable	2012-13 3999768 2013-14 3526560 2014 - 15  3458160 2015 - 16  2.5Mt 2016 -17  2.5Mt	1786770.53 1644201.00 1274628.77 2044571.89 2496483.27	

3q General remarks of inspecting officers on method of mining etc. Mining is carried out as per approved Scheme of mining as far as possible.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Yes	Yes	
4b	Location of topsoil, OB and mineral reject dumps	Location of Top Soil -N- 52480 to N - 52490 E29113 to E29925	Location of Top Soil -N- 52480 to N -52490 E29113 to E29925	
4c	Number of dumps within lease area and outside of lease area	1	1	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	E/W 30221.33, 3001.13 N/S 54419.39, 54239.22	E/S 30221.00, 30049.71 N/S 54401.10, 54268.45	
4e	Number of active and alive dumps.	1	1	Inside
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	
4i	Length of Retaining wall or garland drain all along dumps	100 m	Retaining wall 120m	During 2016-17
4j	Number of settling ponds		2 Settling pit have been developed i)20mx10mx2.5 m (ii)10m x5mx2.5m	
4k	Specific comments of inspecting officer on waste dump management		Mining is carried out as per approved Scheme of mining as far as possible.	

## 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.	As per Mining Scheme	As per Mining Scheme	
5b	Area under backfilling of mined out area	3.46 ha.	1.50 ha.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Top soil will be used for plantation.	Top soil is being used only for plantation and on dead end slop of dump.	Plantation establishment
5d	Total area fully reclaimed and rehabilitated	-	-	Back filling is under progress.
5e	General remarks of inspecting officers on backfilling and reclamation etc.		Mining is carried out as per approved Scheme of mining as far as possible.	

## 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	
6b	Area available for rehabilitation (ha) .	NA	NA	
6c	afforestation done (ha).	No proposal	0.45 Ha.	
6d	No. of saplings planted during the year	2000 saplings	2500 no.of saplings planted	
6e	Cumulative no .of plants	4000 no. of plants	4500 no. of plants planted cululative.	
6f	Any other method of rehabilitation	No Proposal	No work done as reported.	

6g	Cost incurred on watch and care during the year	As proposed Rs. 1.25 Crores will be spent on watch & care during the year.	As reported Rs. 901144/- has been spent in watch & care during the year.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	No proposal as per approved MP/SOM	As reported 0.39 HA. of voids have been back filled during the year
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal for Voids to be filled by Tailings	No work done.
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	Proposal of 1500 no. of saplings to be planted during the year.	1500 no. of saplings have been planted on the backfilled area.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No Proposal	No work done.
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No Proposal	No work done .
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Proposal for 1500 saplings is to be planted in the waste land.	1500 saplings were planted as reported during the inspection.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposal for Environmental monitoring (core zone & buffer zone) in the approved Mining Plan.	As reported during inspection twice a week of environmental monitoring is being done in core & buffer zone.



6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Enviromental Monitoring of Core & Buffer Zone is being done regularly and the parameters are within the limit as reported during the inspection, filling up of viods are being done, Coir Matting of the degraded area is also being done.
----	---	--

#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	45 % -60 % Fe	45 % -60 % Fe	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Crushing & Screening.	Crushing & Screening	
7c	Different grade of mineral sorted out at mines.	58 % to bellow 60 % ( Lumps) 55% to bellow 60 % ( Fines)	58 % to bellow 60 % ( Lumps) 55% to bellow 60 % ( Fines)	
7d	Any beneficiation process at mines	yes	yes	2 Crusher Plant and 5 screening plant.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		Mining is carried out as per approved Scheme of mining as far as possible.	

#### Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
--------	------	-----------	-------------	---------

8a	Separate removal and utilization of topsoil (Rule 32)	267m <sup>3</sup>	674m <sup>3</sup>	Total generation during the year.
8b	Concurrent use or storage of topsoil		547.68m <sup>3</sup> used and stored 252.64cum	Used for plantation and on slope of dump.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	yes	yes	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use			Waste rock generally used for construction of retaining wall & mining road. And dumping in backfilled area.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)			Reclamation is under progress.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	-	-	
8g	Survival rate			75% survive of planted sapling during the year.
8h	Water sprinkling on roads to control airborne dust			8 no. of water tanker engaged for dust suppression.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Mining is carried out as per approved Scheme of mining as far as possible.

---

Compliance of Rule 45:

---

Sl.No.	Item	Propasals	Actual work	Remarks
--------	------	-----------	-------------	---------

---

9a	Status of submission of Monthly and Annual returns	Monthly return submitted up to Oct.17 and Annual return submitted up to 2016- 17.	Found Correct
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	i)Mining Eng- Ramashish Kumar ii) Geologist -Debasis Das iii)Mines Manager - Manoranjan Nath	Found Correct.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit- 17.91 Ha. Occupied for plant, buildingor road -1.66Ha. Used for waste dump- 1.5Ha.	As per Part I,Point 12 the Total lease area utilisation at the end of year is given as 22.97ha.,which is less as total broken up area at the time of approval of Scheme of mining was 29.4648ha. For the discrepancy Violation letter has been sent on 06/12/2017.
9d	Scrutiny of Annual return on afforestation	i) Within lease 2500 saplings planted.ii)out side lease- 200.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	-	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing stock of ROM - 59006.73MT	Found correct
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	i)Captive used ii)CLO-652/- Fines -522/- iii)Cost of production - 731.03/-	Found correct
9h	Scrutiny of Annual return on fixed assets	Fixed asset - Rs 352872045/-	Found correct

9k	Scrutiny of Annual return on mining machineries	i)Back Hoe-13 ii)Dumper-25 iii)Blast hole drill-2 iv)Dozer-2 v)Loader-10 vi)Crane - 1 vii)Crusher-3	Found correct
----	--	--	---------------

---

**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)	06/12/2017				
MCDR17 Rule 48	06/12/2017				
MCDR17 Rule 26(2)	06/12/2017				
MCDR17 Rule 19(1)	06/12/2017				
MCDR17 Rule 19(2)	06/12/2017				
MCDR17 Rule 19(3)	06/12/2017				
MCDR17 Rule 31(4)	06/12/2017				
MCDR17 Rule 33	06/12/2017				
MCDR17 Rule 35(2)	06/12/2017				
Rule 45(7)	06/12/2017				

**Date :**

**(B.P KERKETTA)**

Indian Bureau of Mines