

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

MCDR INSPECTION REPORT

Kolkata regional office

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

Mine code : 30BHR27010

- (i) Name of the Inspecting : **K004**) **B.P KERKETTA**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Sri A.K.Mishra, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 26/10/2017
- (v) Prev.inspection date : 10/02/2014

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **GUA**
- (b) **Registration NO.** :
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : JHARKHAND
District : SINGHBHUM (WEST)
Village : GUA
Taluka : CHAIBASA
Post office : GUA
Pin Code : 833213
FAX No. : 06596 263714
E-mail : rmdsail@gmail.com
Phone : 06596 263713
- (f) Police Station : GUA
- (g) First opening date : 12/09/1919
- (h) Weekly day of rest : SUN
2. Address for : 50 CHOWRINGHEE ROAD .
correspondance KOLKATA .
WEST BENGAL.
3. (a) Lease Number : BHR0057
- (b) Lease area : 1443.76
- (c) Period of lease : 20
- (d) Date of Expiry : 21/02/2019
4. Mineral worked : MANGANESE ORE Associated
IRON ORE Main

5. Name and Address of the

Lessee : STEEL AUTHORITY OF INDIA LTD.
 INDUSTRY HOUSE 5TH & 6TH
 FLOOR 10, CAMAC STREET
 KOLKATA WEST BENGAL
 Phone:033-22822316/0462/3385
 FAX :033-22822316/0462

Owner : K. MAITY
 M/S STEEL AUTHORITY OF
 INDIA LTD. ISPAT BHAWAN ,
 LODHI ROAD NEW DELHI DELHI
 DELHI
 Phone: 01124367015
 FAX :

Agent : MANASH BISWAS
 GUA IRON ORE MINE AT&P.O
 GUA, DIST. SINGHBHUM WEST
 JHARKHAND SINGHBHUM (WEST)
 JHARKHAND
 Phone: 8986881501
 FAX :

Mining Engineer

Name : B. N. SINGH,Full Time
 Qualification : AMIE(MINING)
 Appointment/ : 01/05/2008
 Termination date

Geologist

Name : Dr. T.C. Ananda,Full Time
 Qualification : M.Sc.(Geo)
 Appointment/ : 01/03/2008
 Termination date

Manager

Name : A. K. MISHRA
 Qualification : B.Tech. (MINING)
 Appointment/ : 08/08/2017
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	20/06/2000
Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	05/05/2006
	:	Renewal under rule 24 MCR1960	16/10/2009
	:	Modif.of approved Mining Plan	18/08/2010

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	70 Boreholes (2014-15), 35 Boreholes (2015-16), 20 Boreholes (2016-17)	Nil	For want of Forest Clearance exploration could not be done.
1b	Exploration over lease area for geological axis 1 or 2	20 (DC) in Fe (2016-17)	Nil	For want of Forest Clearance exploration could not be done.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Nil	Nil	For want of Forest Clearance exploration could not be done.
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	
1e	Balance reserve as on 01/04/20	Proved (111) 147851789.00 Te (+57%Fe)	Proved (111) 147851789.00 Te (+57%Fe)	
1f	General remarks of inspecting officers on geology, exploration etc		Mining Operation 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	810-760m RL 2.02 MT	1554059 Te ,OT Hill 790-760m RL (OB+IB)	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Nil	Nil	
2c	Stripping ratio or ore to OB ratio	1:0.45	1:0.15	
2d	Quantity of topsoil generation in m3	No specific proposal	Nil	
2e	Quantity of overburden generation in m3	950000 cu.m.	621624 cu.m.	

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Mining Operation 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	3	2	
3b	Quantity of ROM mineral production proposed	6.0 Million Te	4.01 MillionTe	2016-17 Production
3c	Recovery of sailable/usable mineral from ROM production	30% (+10-65mm) 70%(-10mm)	1031170.00 Te 2983365.00 Te	2016-17 Production
3d	Quantity of mineral reject generation	<45%Fe	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	< 45% Fe	Nil	
3f	Quantity of sub grade mineral generation.	0.74 MillionTe	5781.00 Te	
3g	Grade of sub grade mineral generation	51.32% Fe	58% Fe	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Proposed Beneficiation Plan for 12.5 millionTPA.	Not yet started for want of Forest Clearance.	
3j	Provision of drilling and blasting in mineral benches	Drilling & blasting proposed.	Drilling & blasting carried out.	

3k	Provision of mining machineries in mineral benches	Shovel & Dumpers.	Shovel & Dumpers.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	10 mts	Yes,10m
3m	Total area covered under excavation/pits	208.45 Ha	179.648 Ha
3n	Ore to OB ratio for the pit/mine during the year.	1:0.45	1:0.15
3o	Total area put in use under different heads at the end of year	274.691 Ha	274.691 Ha
3p	Production of ROM mineral during the last five year period as applicable	Year Production 2011-12 10.0MillionT 2012-13 10.0Million T 2013-14 10.0MillionT 2014-15 10.0 MillionT 2015-16 10.0MillionT 2016-17 10.0MillionT	Year Production 2011-12 454624.40 T 2012-13 543562 T 2013-14 3432738.26 T 2014-15 2479597 T 2015-16 3565800 T 2016-17 4014535 T
3q	General remarks of inspecting officers on method of mining etc.		Mining Operation 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)	O.T. Hill-Dump-5; Ranichua-Dump-2 ;	O.T. Hill Ranichua	

4b	Location of topsoil, OB and mineral reject dumps	O.T. Hill-Dump-5; Ranichua-Dump-2 ;	RL810-760m RL780-720m RL825-795m
4c	Number of dumps within lease area and outside of lease area	4	3
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	N1800-N2000 N400-N600 S500-S600	All three active dumps
4e	Number of active and alive dumps.	3	3
4f	Number of dead dumps.	One	One
4g	Number of dumps established.	3	3
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	Around the dumps	75-100m
4j	Number of settling ponds	One	One
4k	Specific comments of inspecting officer on waste dump management		Mining Operation 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.	780-830 RL	Nil, Mineral is still continuing in the quarry floor.	Due to lean ore or subgrade ore availability

5b	Area under backfilling of mined out area	O.T.Hill RL800-760m; Bai-Hill- RL810-750m; Ranichua 800-730m; HD buru RL730-790m; IInd Level RL760-780	O.T.Hill RL800-760m; Bai-Hill- RL810-750m; Ranichua 800-720m;	Due to lean ore or subgrade ore availability
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	HD buru Dump 5	Nil	
5d	Total area fully reclaimed and rehabilitated	3.5 Ha	3.5ha.	
5e	General remarks of inspecting officers on backfilling and reclamation etc.		Mining Operation 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 Scheme of Mining and PMPC 01.04.2014- 31.03.2019	Actual waste dumping - dump no.1,2,and 4. Three retaining walls of 75-100m build.	
6b	Area available for rehabilitation (ha) .	Area not Proposed.Only backfilling cost of Rs.2.09Crores has been proposed @Rs.22/cum.i.e . about 95000cum of backfilling.	Reclaimed/rehabilitated area :35.17ha	
6c	afforestation done (ha).	3.43ha.	0.3ha.	
6d	No. of saplings planted during the year	500nos	1000nos.inside and 1000nos. outside lease area.	

6e	Cumulative no .of plants	136000nos	37850nos.
6f	Any other method of rehabilitation	Nil	Nil
6g	Cost incurred on watch and care during the year	Rs 0.20Lakh	Rs.0.80 Lakh
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	NA	NIL
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NA	NIL
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	NA	NIL
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NA	NIL
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NA	NIL
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	NA	NIL
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NA	NIL

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NA	NIL
6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly	Quarterly
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		Mining Operation is carried out as per approved Scheme of Mining as far as possible.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Not Specifically mentioned in the Scheme of mining.	3928907.93 Te	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Yes, Mechanical	
7c	Different grade of mineral sorted out at mines.	Not Proposed in MP/PMCP	Blending is done at mines to achieve grade of 62.0-63.0 % Fe	
7d	Any beneficiation process at mines	NA	NA	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		Mining Operation 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)	Nil	Nil	There was no top soil in current year.
8b	Concurrent use or storage of topsoil	NA	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	At O.T. Hill and Ranichua dumps	At O.T. Hill and Ranichua dumps	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Nil	Nil	Not yet reached the mined out stage
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	52.32ha.	35.17ha.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	36850nos. saplings planted from 2011-14 and additional 500 nos to be planted during previous year.	36850nos. saplings planted from 2011-14 and additional 1000 nos planted within the lease and 1000nos.saplings outside the lease during previous year.	
8g	Survival rate	Not Proposed.	50%	
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		Mining Operation 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	M.R. Submitted up to September-2017 A.R. submitted up to 2016-17	M.R. Submitted up to September- 2017 A.R. submitted up to 2016-17	Online submission is done of both returns
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Details given in AR as Sri B.N.Singh, Mining Engineer in Charge, Dr. T.C.Ananda, Geologist in Charge, Sri A.K.Mishra, Manager.	Found Correct	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area covered under current O/C workings 179.648ha., Reclaimed/rehabilitated area 35.17ha., waste disposal area 25ha., Area occupied by Plant, Building, Residential, Welfare Building, Roads 16.265ha, Subgrade Dump 18.608ha.	Found Correct.	
9d	Scrutiny of Annual return on afforestation	1000no of trees inside and 1000no of trees outside Lease. Survival rate 50% for inside and outside the lease.	Found Correct.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	NIL	found correct.	

9f	Scrutiny of Annual return on ROM stock and/or graded ore	Opening Stock 251584.31Te Production 4014535Te Closing Stock 282982.31Te,	Found correct.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale value is nil as it is a captive mine.Ex. Mine Price has been given as Rs 300/Te,Rs 350/Te,Rs 500/Te for Iron Ore Grade 60% to below 62%,62% to below 65%, ,65% and above respectively. Cost of Production Rs 756.25/Te.	Found Correct.
9h	Scrutiny of Annual return on fixed assets	Rs2360832082/-	Found Correct.
9k	Scrutiny of Annual return on mining machineries	2nos Shovel(Hydraulic)9.5cum ,6nos. Dumper 100Te , 3nos. Dumper 50Te, 4nos.Rock Drill (Non Electric,150mm) , 6 nos.Dozer(616H .P.), 1no. Back Hoe(1.2cum), 1no. Back Hoe(1.62cum),W ater Tanker (28000Ltrs) 1no., Motor Grader(280H.P.) 1no.	Found Correct.

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
MCDR17	Rule 11(1)	05/12/2017			
MCDR17	Rule 35(2)	05/12/2017			
	Rule 45(7)	05/12/2017		10/04/2018	

Date :

(B.P KERKETTA)

Indian Bureau of Mines