

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/SNG/MCDR-3/BBS

Mine code : 30ORI13010

- (i) Name of the Inspecting : **CHHA**) **SHRI L H CHHANGTE**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Sri Santosh Kr Sahoo, GM (Mines)
Official with
Designation
- (iv) Date of Inspection : 26/07/2016
- (v) Prev.inspection date : 25/07/2015

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KOIRA**
- (b) **Registration NO.** :
- (c) Category : A Manual
- (d) Type of Working : Opencast
- (e) Postal address
State : ORISSA
District : SUNDARGARH
Village : KOIRA
Taluka : BONAI
Post office : KOIRA
Pin Code : 770048
FAX No. : 06767-279218,275367
E-mail : kjr emilbb@sancharnet.in,er
Phone : 06767-279209,275489
- (f) Police Station :
- (g) First opening date : 27/08/1971
- (h) Weekly day of rest : SUN
2. Address for : VILLAGE. KOIRA, PO: KOIRA
correspondance TALUK. BONAI
DIST. SUNDERGARH, ORISSA, PIN- 770048
3. (a) Lease Number : ORI0148
(b) Lease area : 90.14
(c) Period of lease : 20
(d) Date of Expiry : 26/08/2021
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : ESSEL MINING& INDUSTRIES LTD.
 AT/PO: BARBIL KEONJHAR
 ORISSA
 Phone:06767-30437
 FAX :06767-75367

Owner : ASWANI KOTHARI(NOMINATED OWNER)
 GOLD CORNET,FLOT NO 4 11,
 NAWRAJEE GAMADIA ROAD
 MUMBAI MUMBAI (SUBURBAN)
 MAHARASHTRA
 Phone:
 FAX :

Agent : RAVINDRA GAJANAN SATHE
 KASIA IRON & DOLOMITE MINES
 M/S ESSEL MINING &
 INDUSTRIES LTD KASIA,PO-
 BARBIL, KEONJHAR KEONJHAR
 ORISSA
 Phone:
 FAX : 06767 275367

Mining Engineer

Name : SUNIL KUMAR SINHA,Full Time
 Qualification : B E MINING
 Appointment/ : 11/06/2012
 Termination date

Geologist

Name : JAYHARI MOHANTA,Full Time
 Qualification : MSC GEOLOGY
 Appointment/ : 10/12/2011
 Termination date

Manager

Name : SHATRUJIT KUMAR
 Qualification : B E MINING
 Appointment/ : 13/10/2010
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	28/05/2005
Plan/Scheme of Mining	:	Renewal under rule 24 MCR1960	27/02/2007
	:	Mining Scheme rule 12 MCDR1988	18/06/2007
	:	Modif.approved Mining Scheme	17/04/2015
	:	Mining Scheme rule 12 MCDR1988	18/03/2016

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	15 bore holes for 2015-16	NIL	The mine has been closed due to want of statutory clearance since 2012 June
1b	Exploration over lease area for geological axis 1 or 2	100% during 2015-16	Hardly 40% of the ML area covered under G1 & 2	Mine being closed since 2012 June
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not Given	Not available during inspection	
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL	Almost about 60% of the ML area	
1e	Balance reserve as on 01/04/20	Estimated as per MP was 12329798 MT 111, 3400600 MT of 121, 122	Reserves updated as per 01/04/2016 was more or less same as proposed in the approved MP	No significant deviation
1f	General remarks of inspecting officers on geology, exploration etc	Details of exploration proposal given in the MP	No exploration work could be carried out for the last 4 years	Mine was suspended since June 2012 due to want of certain Statutory clearances

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Main pit in Block A	Developed as proposed	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches proposed	separate benches developed in OB and Ore as proposed	No deviation

2c	Stripping ratio or ore to OB ratio	1:0.085	So far 1: 0.1	Last 4 years stripping ratio could not be calculated as the mine was closed / suspended
2d	Quantity of topsoil generation in m3	For 2015-16, NIL	None	Practically NO top soil generated here, moreover the mine has been closed since June 2012
2e	Quantity of overburden generation in m3	3, 50,000 m3 for 2015-16	NIL as the mine was closed since last 4 years	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Specific scientific development proposal given in the MP	The same couldnot be carried out as the mine was closed for the last 4 years	

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	1 (one) in Block A	Developed as proposed	
3b	Quantity of ROM mineral production proposed	For 2015-16, ROM production proposal was 1,20,0000 MT	NIL	Mine was closed
3c	Recovery of sailable/usable mineral from ROM production	100% recovery proposed	No work done during the year	Mine is closed
3d	Quantity of mineral reject generation	Proposed was 78,000 m3 for 2015-16	None	Mine is closed
3e	Grade of mineral rejects generation and threshold value declared.	Threshold value being 45% Fe, -45% Fe content is considered as Mineral Reject	No work	Mine is closed

3f	Quantity of sub grade mineral generation.	38580 m3 for 2015-16	None	Mine is closed
3g	Grade of sub grade mineral generation	45-55% Fe	None	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Not worked	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Yes	Not carried out	The mine has been closed since June 2012
3j	Provision of drilling and blasting in mineral benches	Yes	None for the year 2015-16	Mine is closed
3k	Provision of mining machineries in mineral benches	Yes	No work	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	No work	
3m	Total area covered under excavation/pits	45 ha proposed as on 2015-16	Actual was 40.880 ha only	
3n	Ore to OB ratio for the pit/mine during the year.	1: 0.085	No work during last 4 years , hence couldnot be assessed	

3o	Total area put in use under different heads at the end of year	Out of total ML area of 86.886 hactares the Land use pattern proposed in their MP was :	Actual was was :	
		1. Mine workings = 45 ha, 2.Dump = 6.654 ha., 3. Buildings = 0.09 ha, 4. Stackings = 5 ha	1. Mine workings = 40.880 ha, 2.Dump = 6.50 ha., 3. Buildings = 0.09 ha, 4. Stackings = 3.75 ha	
3p	Production of ROM mineral during the last five year period as applicable	Porposal for 2015-16 was 1,200,000 MT	NIL	mine was closed since June 2012
3q	General remarks of inspecting officers on method of mining etc.	Scientific proposals were made in thei approved MP	There was no working in this mine since June 2012. Hence NIL production since then.	

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Yes	There are seperate dumping for OB and Mineral rejects	
4b	Location of topsoil, OB and mineral reject dumps	2 places in Block A and 1 place in Block B	Developed 2 dumps in Block A only	Block B has not been developed so far
4c	Number of dumps within lease area and outside of lease area	3 nos within ML, None outside ML	Only 2 dumps have been developed so far within ML	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	All dumps are to be placed outside UPL	The 2 dumps are outside UPL	

4e	Number of active and alive dumps.	3 active dumps	Developed so far 2 active dumps only	
4f	Number of dead dumps.	NIL	No dead dump so far	
4g	Number of dumps established.	NIL	None	
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Retaining walls are erected along the base of the 2 dumps	
4i	Length of Retaining wall or garland drain all along dumps	800m for dump 1, 350 m for dump 2	Retaining walls constructed as proposed	
4j	Number of settling ponds	NIL	None	
4k	Specific comments of inspecting officer on waste dump management	Specific proposals made in their approved MP	Waste dump management proposals have been carried out satisfactorily	No deviation

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.	Nil	None	No matured area available as on date
5b	Area under backfilling of mined out area	NIL	None	No mined out area as of now
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Nil	None	The only main pit has not yet been fully developed as on date
5d	Total area fully reclaimed and rehabilitated	3.0 ha	Partially 2.196 ha reclaimed	

5e	General remarks of inspecting officers on backfilling and reclamation etc.	No specific proposal for this aspect	No concrete work carried out so far till date
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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	Annual report on PMCP submitted to IBM regularly	
6b	Area available for rehabilitation (ha) .	NIL	None as on date	
6c	afforestation done (ha).	5 hactares till 2015-16	Till date 3.981 hactares only	
6d	No. of saplings planted during the year	Last year 5000 saplings	Actual 3000 saplings only planted	
6e	Cumulative no .of plants	35,000 saplings till 2015-16	Actual cummulative saplings planted was 24650 only	
6f	Any other method of rehabilitation	NIL	None	
6g	Cost incurred on watch and care during the year	Not given	Data not available for this aspect	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	NIL	None	

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NIL	None	
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	NIL	None	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Nil	None	
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	NIL	None	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed	Carried out routine monitoring as proposed in the MP	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Specific proposals made in MP	There has been no activity in this mine in this aspect as well	The mine has been closed since June 2012

Mineral Conservation:

Sl.No.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Proposed was 1.2 MMT for the year 2015-16	NIL as the mine was closed	

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	There has been no activity in this mine whatsoever
7c	Different grade of mineral sorted out at mines.	No specific proposal	No work during the last 4 years
7d	Any beneficiation process at mines .	Yes , mechanised method , dry beneficiation process	No work in this regard as the mine was closed
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Specific proposals made in their MP	No work whatsoever during the last 4 years

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	NIL	Practically no top soil	
8b	Concurrent use or storage of topsoil	NIL	None	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes	Seperate dumps have been maintained for OB, rejedcts and fines	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No specific proposal	No work so far	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	No work
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Given in their MP	Carried out satisfactorily as per MP
8g	Survival rate	80%	Actual 75% so far
8h	Water sprinkling on roads to control airborne dust	Proposed	Routine water sprinkling has been carried out when the mine is operating
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Proposal given in their MP	There has been no adverse effect on the easthetic beauty of the sorruonding due to mining activities

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Yes	The party has been submitting AR / MR on a regular basis	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Yes	All statutory employment has been made in this mine	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Yes , scrutinised their 2015-16 AR	Out of the total ML area of 90.143 hactares , 36.349 ha has been covered under Pits, Partially reclaimed 2.196 ha, Waste disposal 0.936 ha, Plants / infrastructures 13.521 ha	No significant deviation except there has been under development in this mine due to closure oif the mine since June 2012
9d	Scrutiny of Annual return on afforestation	Yes, the was crutinised and found in order	Found in order, Cummulative plantation has been reported as 24650 saplings till date of inspection	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Scrutinised	Since there has been no production whatsoever, rejects whatsoever has not been reported in the AR 2015-16	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Scrutinised	NIL production for the year 2015-16	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Given in the AR 2015-16	Rs 527.95 per ton has been tha last quoted cost of production	
9h	Scrutiny of Annual return on fixed assets	Scrutiniseed	Value of fixed asset given as Rs 381,902,450	
9k	Scrutiny of Annual return on mining machineries	Given in the AR 2015-16	Found in order	

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 :

(SHRI L H CHHANGTE)

Indian Bureau of Mines