

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/KJR/MCDR-62/BBS

Mine code : 30ORI08026

- (i) Name of the Inspecting : **RAM**) **RAMKISHAN R**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri K.Mahanta, Mine Manager
Official with
Designation
- (iv) Date of Inspection : 21/12/2019
- (v) Prev.inspection date : 25/08/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **JILLING LANGALOTA**
- (b) **Registration NO.** :
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : KEONJHAR
- Village : JURURI & BANSPANI
- Taluka : BARBIL
- Post office : JAJANG
- Pin Code : 758052
- FAX No. : 06767 275367,279218
- E-mail : EMI.BRBL@RME.SPRINTRPG.EMS
- Phone : 06767 275457,275512,275240
- (f) Police Station : BAMEBARI
- (g) First opening date : 01/10/1954
- (h) Weekly day of rest : SUN
2. Address for : VILL. JORUDI
correspondance PO. JAJANG, DIST.KEONJHAR
ORISSA.PIN:758052
3. (a) Lease Number : ORI0093
- (b) Lease area : 456.1
- (c) Period of lease :
- (d) Date of Expiry : 31/03/2020
4. Mineral worked : MANGANESE ORE Associated
IRON ORE Main

5. Name and Address of the

Lessee : ESSEL MINING & INDUSTRIES LTD.
 INDUSTRY HOUSE 10 CAMAC
 STREET KOLKOTA-700017
 KOLKATA WEST BENGAL
 Phone:
 FAX :

Owner : Essel mining & Industries Ltd
 Barbil KEONJHAR ORISSA
 Phone: 06767-30437, 30
 FAX : 06767-30367

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

Geologist

Name : P.K.PARIDA, Full Time
 Qualification : M.SC GEOLOGY
 Appointment/ : 20/06/2004
 Termination date

Manager

Name : AJIT KUMAR PATRA
 Qualification : B. E. MINING
 Appointment/ : 13/12/2011
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	30/05/2002
Plan/Scheme of Mining	:	Renewal under rule 22 MCR1960	06/06/2005
	:	Modif.of approved Mining Plan	23/10/2007
	:	Mining Scheme rule 12 MCDR1988	17/04/2009
	:	Modif.approved Mining Scheme	13/09/2011
	:	Mining Scheme rule 12 MCDR1988	13/06/2014
	:	MP modif under 17(3) MCR 2016	18/05/2018
	:	FMCP under 23C(1)	28/08/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No such specific proposal.	Nil	
1b	Exploration over lease area for geological axis 1 or 2	69 nos of boreholes were proposed during the plan period i.e. 2018-19 to 2019-20. for geological axis G1/G2 level	69 nos of boreholes were drilled during the year 2018-19.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year		Drilling was carried out by In house equipment.	
1d	Balance area to be explored to bring Geological axis in 1 or 2	253.95 ha was the unexplored area for which 69 nos of boreholes were proposed to bought area under G1/G2 level.	exploration was carried out as per the proposal.	
1e	Balance reserve as on 01/04/20	As per the approved document as on 18.05.2018 the iron ore reserves are 32.62 mil.t. and resources are 82.88 mil.t.	due to addition/depletion over the period the iron ore reserves as on 01.04.2019 are 45.67 mil.t. and resources are 33.44 mil.t.	
1f	General remarks of inspecting officers on geology, exploration etc		exploration is carried out as per the proposal.	

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	2 quarries were proposed called as Jajang-Langalota Block, Gangaigora Block are proposed for development during the year 2018-19.	development is carried out in Jajang-Langalota Block, Gangai-gora Block	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	no top soil generation is envisaged during the year and seperate dumping of OB and mineral are proposed.	seperate dumping of OB and mineral are carried out.	
2c	Stripping ratio or ore to OB ratio	1:0.09 t/cu.m	1:0.047 t/cu.m.	
2d	Quantity of topsoil generation in m3	Not applicable	Nil	
2e	Quantity of overburden generation in m3	582000 cu.m.	296807 cu.m.	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		development is carried out by opencast minng method in 2 quarries.	

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	two	two	
3b	Quantity of ROM mineral production proposed	6.27 mil.t. during the year 2018-19.	6.27 mil.t.	

3c	Recovery of sailable/usable mineral from ROM production	5.89 mil.t. of saleable ore	5.75 mil.t.
3d	Quantity of mineral reject generation	0.38 mil.t.	0.51 mil.t.
3e	Grade of mineral rejects generation and threshold value declared.	+45%-54% Fe	+45%-54% Fe
3f	Quantity of sub grade mineral generation.	Addressed in mineral rejects coulumn	Not applicable
3g	Grade of sub grade mineral generation	Not applicable	Nil
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.	Not proposed.	Nil
3j	Provision of drilling and blasting in mineral benches	deep hole drilling and blasting isproposed in mineral benches.	Carried out.
3k	Provision of mining machineris in mineral benches	shovel and dumper combination is proposed for excavation and hauling.	shovel and dumper combination is deployed for excavation and hauling.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	9 m bench height is proposed.	maintained.

3m	Total area covered under excavation/pits	166.058 ha at the end of plan period i.e. 2019-20.	154.053 ha	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.09 t/cu.m.	1:0.047 t/cu.m.	
3o	Total area put in use under different heads at the end of year	total area put to use at the end of plan period i.e. 2019-20 is 304.163 ha.	304.163 ha	
3p	Production of ROM mineral during the last five year period as applicable	2014-15: 6.16 mil.t 2015-16: 6.22 mil.t 2016-17: 6.11 mil.t 2017-18: 5.89 mil.t 2018-19: 6.27 mil.t	2014-15: Nil 2015-16: Nil 2016-17: Nil 2017-18: 0.44 mil.t 2018-19: 6.27 mil.t	the mine operations were suspended during the periods from 2014 to 2017 by forest department.
3q	General remarks of inspecting officers on method of mining etc.		production is carried out by opencast mining method and production planned from 2 quarries.	

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	no topsoil generation is envisaged and seperate dumping in OB and mineral rejects are proposed	seperate dumping in OB and mineral rejects are caried out.	However during inspection some quantity of ROM was observed waste dump so violation observed and communicated to lessee letter dated. 07.01.2020.

4b	Location of topsoil, OB and mineral reject dumps	waste generated from mine workings during the plan period is proposed to be dumped in 2 nos of dumps called as Dump No-6 & Jilling Waste Dump. mineral rejects generated are proposed to be temporarily stacked and blended with high grade ore.	carried out accordingly.
4c	Number of dumps within lease area and outside of lease area	2 within lease area.	2 within lease area.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	outside UPL	outside UPL
4e	Number of active and alive dumps.	2	2
4f	Number of dead dumps.	No proposal.	Nil
4g	Number of dumps established.	No proposal.	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	retaining wall and garland drain are provided all along the dump.	retaining wall and garland drain are provided all along the dump.
4i	Length of Retaining wall or garland drain all along dumps	Not applicable	Nil
4j	Number of settling ponds	Not applicable	Nil

4k	Specific comments of inspecting officer on waste dump management	waste dumping is carried in 2 no of waste dumps as proposed in the mining plan.
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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.	Area not matured for reclamation and rehabilitation	Not applicable	
5b	Area under backfilling of mined out area	Not applicable	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not applicable	Nil	
5d	Total area fully reclaimed and rehabilitated	Not applicable	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.		Area not matured for reclamation and rehabilitation	

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).	PMCP report to be subitted before 1 st July.	submitted.	

6b	Area available for rehabilitation (ha) .	Not applicable Nil	
6c	afforestation done (ha).	3 ha during the year 2018-19.	3 ha
6d	No. of saplings planted during the year	2500 nos	13200 nos
6e	Cumulative no .of plants		13200 nos
6f	Any other method of rehabilitation	Not applicable Nil	
6g	Cost incurred on watch and care during the year		Rs 200000
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Not applicable Nil	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not applicable Nil	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Not applicable Nil	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not applicable Nil	

6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not applicable Nil	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not applicable Nil	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not applicable Nil	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not applicable Nil	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodical Monitoring as stipulated in Environment Clearance granted by MoEF & CC and Consent to Operate granted by SPCB.	Periodical Monitoring as stipulated in Environment Clearance granted by MoEF & CC and Consent to Operate granted by SPCB is carried out.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		PMCP measures implemented as per the mining plan.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	grade-wise sorting of mineral is proposed.	carried out
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical
7c	Different grade of mineral sorted out at mines.	+45%-54% Fe and +54% Fe	+45%-54% Fe and +54% Fe
7d	Any beneficiation process at mines	Not proposed.	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		grade-wise sorting of mineral is carried out.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not applicable	Nil	
8b	Concurrent use or storage of topsoil	Not applicable	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	sperate dumps for OB is proposed and mineral rejects are temporarility stacked and blended with high grade ore.	carried out accordingly.	

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not applicable Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not applicable Nil	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	2500 nos	13200 nos
8g	Survival rate		98%
8h	Water sprinkling on roads to control airborne dust	water sprinkling on haul roads is proposed for dust supression	carried out
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		aestthetic beauty in and around the mine area are mainatined

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly and annual returns are to be submitted as per rule 45 of MCDR, 2017	submitted.	

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Graduate Mining Engineer - 6, Diploma Mining Engineer - 8, Geologist - 9	Graduate Mining Engineer - 6, Diploma Mining Engineer - 8, Geologist - 9
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under current (O/C) Workings: 166.053 ha, Used for waste disposal 35.528 ha, etc.,	found to be in order.
9d	Scrutiny of Annual return on afforestation	13200 nos	13200 nos
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	0.51 mil.t	0.51 mil.t
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM closing stock is 523092.365 t	ROM closing stock is 523092.365 t
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	production cost Rs.1565	production cost Rs.1565
9h	Scrutiny of Annual return on fixed assets	Rs 512082100	Rs 512082100
9k	Scrutiny of Annual return on mining machineries	BLAST HOST DRILL 165.000 MM - 2 BLAST HOST DRILL 102.000 MM - 1 SHOVEL (HYDRAULIC) 2.100 CUM - 10 SHOVEL (HYDRAULIC) 1.200 CUM - 3 DOZER 305.000 HP - 3	found to be in order.

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 :

(RAMKISHAN R)

Indian Bureau of Mines