

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

MCDR inspection REPORT

Goa regional office

Mine file No : Goa/Fe/118

Mine code : 30GOA01045

- (i) Name of the Inspecting : **SP01**) **SURESH PRASAD**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Sandeep Morazkar (Agent) , Jitendra Kumar
Official with
Designation
- (iv) Date of Inspection : 02/08/2017
- (v) Prev.inspection date : 17/11/2009

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **DEULEM-PISSURLEM**
- (b) **Registration NO.** :
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : GOA
District : NORTH GOA
Village : PISSURLEM
Taluka : SATTARI
Post office : HONDA
Pin Code : 403005
FAX No. : ---
E-mail : --
Phone : 0832-228174
- (f) Police Station :
- (g) First opening date :
- (h) Weekly day of rest : MON
2. Address for : Dulem-Pissurlem Mine of M/s R.S. Shetye & Bros.
correspondance At & Po- Pissurlem, Tq- Sattari
Northgoa-district, Goa
3. (a) Lease Number : GOA0003
(b) Lease area : 99.47
(c) Period of lease :
(d) Date of Expiry : 22/11/2027
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : R. S. SHETYE & BROTHERS
 Trionara Apartments, 14,
 First Floor, Near Municipal
 Market, Panaji NORTH GOA
 GOA
 Phone: 0832-228174
 FAX :

Owner : M/s R.S.Shetye & Bros. (Madhukar Shetye, Director)
 Trionara Apartments, 14,
 First Floor, Near Municipal
 Market, Panaji NORTH GOA
 GOA
 Phone: (0832) 228174
 FAX :

Agent : S.S.SAMANT
 ANNAPURNA APTS. NR GOMANTAK
 PRESS PANAJI NORTH GOA GOA
 Phone:
 FAX :

Mining Engineer
 Name : DYANASH GADGE, Full Time
 Qualification : B.E (MINING)
 Appointment/ : 31/01/2007
 Termination date

Mining Engineer
 Name : V.KUMAR, Full Time
 Qualification : B.E. (MINING)
 Appointment/ : 19/02/2002 16/09/2003
 Termination date

Mining Engineer
 Name : K. SARVANAN, Full Time
 Qualification : B.E (MIN)
 Appointment/ : 20/01/2004 31/01/2007
 Termination date

Geologist
 Name : P.A.GAONKAR, Full Time
 Qualification : M.SC (GEOLOGY)
 Appointment/ : 27/01/1982
 Termination date

Manager
 Name : T.P.SHARMA
 Qualification : B.SC (GEOLOGY), FCC
 Appointment/ : 30/12/2002 28/05/2004
 Termination date

Manager
 Name : D.K. Shrivastava
 Qualification :

Appointment/ :
Termination date

Manager

Name : LECLERC DESOUZA
Qualification : Dip. in Mining and FCMM certificate
Appointment/ : 28/05/2004
Termination date

6. Date of approval of Mining	:	Renewal under rule 22 MCR1960	26/09/1997
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	18/09/2002
		Modif.approved Mining Scheme	13/10/2004
		Renewal under rule 24 MCR1960	02/04/2007
		MP modif under MCR 1960	04/09/2015
		MP modif under 17(3) MCR 2016	16/09/2016
		MP modif under 17(3) MCR 2016	17/02/2017

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	3 NOS.	NIL	3 Nos. of boreholes proposed in 2016-17 but the achievement was nil.
1b	Exploration over lease area for geological axis 1 or 2	27.61 Ha		27.61 Ha area to be bring in G or G2 axis.
1c	Exploration Agencies and Expenditure in lakh rupees during the year		nil	achievement was nil.
1d	Balance area to be explored to bring Geological axis in 1 or 2	27.61 Ha area	27.61 Ha area	27.61 Ha area
1e	Balance reserve as on 01/04/20		15.15MT	
1f	General remarks of inspecting officers on geology, exploration etc			3 nos. of boreholes were proposed as per approved documents in the year 2016-17 whereas the actual achievement was nil.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N1717400 to N1717800 E397950to E398380	N1717400 to N1717800 E397950to E398380	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	yes	available	
2c	Stripping ratio or ore to OB ratio	01:1.49	1: 1.042	achievement in SR in the year 2016-17 is marginally less whereas the SR achieved for the 2017-18 till inspection is seem to be in recovering trends.

2d	Quantity of topsoil generation in m3	nil	nil
2e	Quantity of overburden generation in m3	1643000t	1056098t
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	one	one	
3b	Quantity of ROM mineral production proposed	1.10 MTons	1.01MT	
3c	Recovery of sailable/usable mineral from ROM production			above THL of ROM used after blending.
3d	Quantity of mineral reject generation	nil	nil	No proposal for MR generation
3e	Grade of mineral rejects generation and threshold value declared.	Nil. Threshold value are :- Normal ore +45%Fe, Silicio us ore +35%	Nil Threshold value are : Normal ore +45%Fe, Silicious ore +35%	
3f	Quantity of sub grade mineral generation.	nil	nil	Not proposed.
3g	Grade of sub grade mineral generation		na	no subgrade generation.
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.	Nil	Nil	only dry screening at mine head.
3j	Provision of drilling and blasting in mineral benches	no	na	
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	height-6-8m and width above 8m	as per the proposal in the most of the area.	
3m	Total area covered under excavation/pits	81.6059 Ha	81.5617 Ha	
3n	Ore to OB ratio for the pit/mine during the year.	1:1.49	1: 1.042	
3o	Total area put in use under different heads at the end of year	82.1270 Ha	82.0828 Ha	
3p	Production of ROM mineral during the last five year period as applicable	2012-13-1012740t 2013-14-nil 2014-15-nil 2015-16-541000t 2016-17 - 1100000t	2012-13-78803t 2013-14-nil 2014-15-nil 2015-16-nil 2016-17 - 1012991t	
3q	General remarks of inspecting officers on method of mining etc.			above 92% of the proposed production achieved in the year 2016-17.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)			Top soil was not generated in the assessment year.
4b	Location of topsoil, OB and mineral reject dumps		Location of OB dumping- N1716740 to N1717190; E398454 to E398938	
4c	Number of dumps within lease area and outside of lease area		Within the Lease area = Nil, as temporary backfilling proposed Old dump outside the lease available.	temporary backfilling proposed and carried out during the assessment year.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	nil	nil	old dump outside the lease.
4e	Number of active and alive dumps.	nil	nil	
4f	Number of dead dumps.		one	outside the lease.
4g	Number of dumps established.			One (Outside mining lease)
4h	Whether Retaining wall or garland drain all along dumps are there.			already made in the past.
4j	Number of settling ponds		available	already made in the past further no surface dumping in the current assessment year.(3nos.)
4k	Specific comments of inspecting officer on waste dump management			Temporary backfilling carried out in the assessment year.

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.	part extraction	part extraction and temporary backfilling.	

5b	Area under backfilling of mined out area	tempromy backfilling.	tempromy backfilling as per proposal.	tempromy backfilling .
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	nil	nil	
5d	Total area fully reclaimed and rehabilitated	nil	nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Tempromy backfilling within the pit.

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) .	NIL	NIL	
6c	afforestation done (ha).	Gap filling	Gap filling only.	Gap filling in the plantation area. therofore no additional area for tehe AY.
6d	No. of saplings planted during the year	2600 No's	2600 No's	gap filling
6e	Cumulative no .of plants		202765 No's	
6f	Any other method of rehabilitation	nil	na	
6g	Cost incurred on watch and care during the year	Rs. 58000/-	Rs 0.27Lakhs	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	na	na	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	na	na	back filling is not carried out only temprory backfilling.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	na	na	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	na	na	
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	na	na	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	na	na	mineralized area.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	nil	na	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	nil	na	

6p	Compliance of environmental monitoring (core zone and buffer zone)	yes	available	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Backfilling is in temporary nature. Hence R&R not being done in the M. Lease.

Mineral Conservation:

Sl.No.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	yes	yes	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	mechanised	mechanised	
7c	Different grade of mineral sorted out at mines.		1. Below 55 % of Fe. 2. 55 - 58 % of Fe. 3. 58 - 60 % of Fe.	
7d	Any beneficiation process at mines	dry screened	dry screened	ROM is dry screened at mine by Mobile Screening Plant to produce Lumps & Fines
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			There is no wet beneficiation at mine. However ROM is dry screened at mine by Mobile Screening Plant to produce Lumps & Fines.

Environment:

Sl.No.	Item	Proposals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	nil	na	
8b	Concurrent use or storage of topsoil	nil	na	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	yes	separate dumps for overburden	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	nil	Overburden is presently stacked as temporary backfilling.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	nil	na	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	yes	available	
8g	Survival rate		SR-70%	70%
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			observed Satisfactory.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	Monthly returns till the month of June 2017 and Yearly returns for the year of 2016-17 submitted.	Monthly returns till the month of June 2017 and Yearly returns for the year of 2016-17 submitted.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer appointed.	Information of Mining Engineer available. But information of geologist has not furnished.	Information of geologist has not been furnished. Violation pointed out.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	maintained	maintained	
9d	Scrutiny of Annual return on afforestation		yes	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)		not applicable.	not proposed.
9f	Scrutiny of Annual return on ROM stock and/or graded ore		yes	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	yes	available	
9h	Scrutiny of Annual return on fixed assets		available	
9k	Scrutiny of Annual return on mining machineries		available	machinery details furnished in the AR.

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)	11/08/2017	16/10/2017			
MCDR17	Rule 55(1)(1	11/08/2017	16/10/2017			

Date :

(SURESH PRASAD)

Indian Bureau of Mines