

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

MCDR inspection REPORT

Goa regional office

Mine file No : Goa/Fe/70

Mine code : 30GOA01060

- (i) Name of the Inspecting : **SP01**) **SURESH PRASAD**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 09/08/2017
- (v) Prev.inspection date : 18/06/2009

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **GAVAL SONSHI**
- (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 : PISSURLEM
Pin Code : 403530
FAX No. : 0832- 2370681
E-mail : ukerkar@sesagoa.com
Phone : 0832-2370050
- (f) Police Station : SANQUELIM
- (g) First opening date : 01/01/1965
- (h) Weekly day of rest : SUN
2. Address for : At & Po- Pissurlem
correspondance Tq-Sattari
North Goa, Goa
3. (a) Lease Number : GOA0081
- (b) Lease area : 68.1
- (c) Period of lease : 10
- (d) Date of Expiry : 21/11/1997
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : COSME COSTA & SONS
 Altinho Mapusa-Goa NORTH
 GOA GOA
 Phone:0832-2262314
 FAX :0832-2262314

Owner : Carminho Da Coasta, M/s Cosme Costa & sons
 M/s Cosme Costa & Sons
 Altinho Mapusa, Goa NORTH
 GOA GOA
 Phone:
 FAX :

Agent : U.S. TILVE
 Codli Mine of M/s Sesa Goa
 Ltd., P.O. KIRLAPALE, Via
 Curcholem, Codli, Goa.
 SOUTH GOA GOA
 Phone: 0832-2618274/79
 FAX : 0832-2618280

Mining Engineer
 Name : GUNDEABOINA YADAGIRI, Full Time
 Qualification : B.E
 Appointment/ : 01/12/2010
 Termination date

Mining Engineer
 Name : SAUVICK MUZUMDER, Full Time
 Qualification : B.E. (MINING)
 Appointment/ : 26/08/2000 19/09/2005
 Termination date

Mining Engineer
 Name : Abdual Razak, Full Time
 Qualification : BE Mining
 Appointment/ : 15/12/1999
 Termination date

Manager
 Name : Ramdas Kawlekar
 Qualification : Dipl. in Mining & Mine Surveying
 Appointment/ : 01/04/2008
 Termination date

Manager
 Name : ULHAS KERKAR
 Qualification : DIP MINING, FCMM
 Appointment/ : 11/12/2007 01/04/2008
 Termination date

Manager
 Name : Newton Fernandes
 Qualification : Diploma in mining & Survey, F.C.C.
 Appointment/ : 19/09/2005 11/12/2007
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	13/01/2003
		Modif.approved Mining Scheme	25/01/2005
		Modif.approved Mining Scheme	02/09/2005
		Renewal under rule 24 MCR1960	08/01/2007
		Modif.of approved Mining Plan	15/09/2008
		Modif.of approved Mining Plan	22/04/2010
		MP modif under MCR 1960	27/07/2015
		MP modif under 17(3) MCR 2016	09/03/2017

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	
1b	Exploration over lease area for geological axis 1 or 2	nil	nil	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	nil	nil	No proposal
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	
1e	Balance reserve as on 01/04/20		30.172 MT	
1f	General remarks of inspecting officers on geology, exploration etc			Satisfactory.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	E-397884/398406 N-1716636/1717196	E-397840/398160 N-1716640/1717110	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	yes	available	Mineral-15 Overburden-15
2c	Stripping ratio or ore to OB ratio	1:0.32	1:2.71	
2d	Quantity of topsoil generation in m3	Nil	nil	No proposal for top soil handling
2e	Quantity of overburden generation in m3	1636364	1878673	

2f General remarks of inspecting officers on development of pit w.r.t. type of deposit etc satisfactory

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	one	one	
3b	Quantity of ROM mineral production proposed	1.600MT	1.525 MT	
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	Blending with good quality ore.
3d	Quantity of mineral reject generation	100000T	89160T	
3e	Grade of mineral rejects generation and threshold value declared.	51.20 %Fe(Average grade given in mining plan)	49.98% Fe average	Threshold value 45% Fe normal ore Selicious ore 35%Fe
3f	Quantity of sub grade mineral generation.	nil	nil	
3g	Grade of sub grade mineral generation			
3h	Manual / Mechanised method adopted for segregating from ROM	Stripping Method by HEMM	Stripping Method by HEMM	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	nil	nil	
3j	Provision of drilling and blasting in mineral benches			Not proposed

3k	Provision of mining machineries in mineral benches	Excavator, Wheel Loaders, Ripper Dozer & Dumpers	Excavator, Wheel Loaders, Ripper Dozer & Dumpers	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench Height:7m Bench width:7m	yes	
3m	Total area covered under excavation/pits	61.7430 Ha	61.7430 Ha	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.32	1:2.71	
3o	Total area put in use under different heads at the end of year	Mining= 61.7430 Ha Tailing Pond= 0 Roads=0,waste Dump=0,Others= 0	Mining= 61.7430 Ha Tailing Pond=0 Roads=0,waste Dump=0,Others=0	
3p	Production of ROM mineral during the last five year period as applicable	2012-13=5.912 MT 2013-14=0 2014-15=0 2015-16=1.348410 MT 2016-17=1.6 MT	2012-13=0.899430 MT 2013-14=0 2014-15=0 2015-16=0.200760 MT 2016-17=1.525737 MT	
3q	General remarks of inspecting officers on method of mining etc.			satisfactory. Advice to maintain the working benches with adjacent lease holders for better safety and stability.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No top soil generation, OB proposed to temporary backfill.	OB temporarily backfilled.	

4b	Location of topsoil, OB and mineral reject dumps	E-398438/398844 N-1716476/171684 2	E-398640/398920 N-1716460/1716678	
4c	Number of dumps within lease area and outside of lease area	1 dumps within one lease.		
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Within UPL	Within UPL	
4e	Number of active and alive dumps.	one	one	
4f	Number of dead dumps.	nil	nil	
4g	Number of dumps established.	one	one	
4h	Whether Retaining wall or garland drain all along dumps are there.		Garland drains are made on fresh dump	Garland drains are made on fresh dump
4i	Length of Retaining wall or garland drain all along dumps	nil	Garland Drain-300 m	Garland Drain-300 m
4j	Number of settling ponds	nil	nil	
4k	Specific comments of inspecting officer on waste dump management			Temprory backfilling proposed without exhausting the mineral within the pit.

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	nil	No Proposals of backfilling in mined out area. Temprory backfilling without exhausting the minerals.
5b	Area under backfilling of mined out area	Nil	Nil	

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.			No Proposals of backfilling in mined out area. Temprory backfilling without exhausting the minerals due to space constraints.

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).		submitted	
6b	Area available for rehabilitation (ha) .	Nil	Nil	Mineral not exhausted from the pit.
6c	afforestation done (ha).	nil	nil	no proposal within the lease.
6d	No. of saplings planted during the year	nil	nil	
6e	Cumulative no .of plants		nil	Nil within the lease. entire lease area is under mineralized and used for mining.
6f	Any other method of rehabilitation	nil	nil	
6g	Cost incurred on watch and care during the year	nil	nil	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	nil	nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	nil	nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	nil	nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	nil	nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	nil	nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	nil	nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	nil	nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	nil	nil

6p	Compliance of environmental monitoring (core zone and buffer zone)	yes	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		Entire area is under mineralized zone and surrounded by other mining leases and working with common mine boundary permissions.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade-wise sorting within lease area	Grade-wise sorting within lease area	by excavator
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	Excavator
7c	Different grade of mineral sorted out at mines.	Normal Ore=+54% Fe Mineral Reject=+45% to -54% Fe	Normal Ore=+54% Fe Mineral Reject=+45% to -54% Fe	
7d	Any beneficiation process at mines	nil	nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			satisfactory

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	Nil	nil	No proposal for top soil
8b	Concurrent use or storage of topsoil	Nil	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)		yes	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	nil	nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	nil	nil	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)			
8g	Survival rate	NA	NA	Entire lease area are mineralized and sorrounded with mining leases and working with common boundary permissions.
8h	Water sprinkling on roads to control airborne dust		yes	

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Entire lease area are under mineralized zone. Lease is sorrounded with other mining leases and working with common boundary permissions for achieving towards mineral conservation and minimal waste.
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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		submitted	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager		Provided	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.		provided	
9d	Scrutiny of Annual return on afforestation		nil	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)		provided	
9f	Scrutiny of Annual return on ROM stock and/or graded ore		provided	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost			

9h	Scrutiny of Annual return on fixed assets	yes
9k	Scrutiny of Annual return on mining machineries	provided

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 :

(SURESH PRASAD)

Indian Bureau of Mines