

MCDR Insp. Report

1) Name of Inspecting officer:	P. Prakash
2) Designation	Dy. Controller of Mines
3) Accompanying mine official with designation	Mr. Jayesh Bhandodkar -Mines Manager.
4) Date of Inspection	12.06.2017
5) Date of Previous Inspection	12.08.2016

PART –I GENERAL INFORMATION

1. Name of mine	COSTI IRON ORE MINE – OITEIROS QUE FICA DE AMBOS ETC. ML
a. Category of mine(A-Fully mechanized, A-Other than fully mechanized, B-Manual )	A- Fully Mechanized
b. Mode of working ( OC/UG/Both o/c & u/g)	OC
c. Postal address	
d. State	Goa
e. District	South Goa
f. Tehsil/ Taluka	Sanguem
g. Police station	Sanguem
h. Village	Santona & Dudal
i. Post	Kalay
j. Pin Code	403 704
k. FAX	08322521011
l. E-mail	ccl@chowgule.co.in
m. Phone	7030961586
n. Weekly day of rest	Sunday

2. a) Lease No.	:	T. C. Nos. 40/1950
b) Lease area in hect.	:	85.6246 Ha.
c) Period of lease	:	20 years
d) Date of expiry.	:	21.11.2027

3.a) Mineral(s) included in the lease deed	:	
b) Mineral(s) worked	:	Iron Ore

4.Name and address of ( including FAX/ E-mail, if any)		
a) Lessee/ owner	:	Vijay V. Chowgule, Legal Heirs of Sri V. D. Chowgule,
b) Nominated owner	:	--
c) Agent with date of appointment	:	Sanjay Chakraborty, Date of appointment:01.10.2010
d) Mining Engineer; whether full/ part time with date of appointment, qualification & Experience	:	Mr. Rabi Ranjan - B.E (Mining), full part time Date of appointment: 04.05.2015, 12 Years
e) geologist ; whether full/ part time with date of appointment, qualification & Experience	:	Viraj B Kale - Geologist (M.Sc. Geology), full time,Date of appointment: 20.09.2016, 7 Years & 6 months
f) Mine Manager with qualification and date of appointment	:	Mr. Jayesh P. Bhandodkar, Diploma in mining & Holder of Ist class Mines Manager's Certificate of competency, Date of appointment: 03.05.2017

5. Details about Mining Plan/ Mining Scheme		
a) Letter No. and date of approval of mining plan/ mining scheme	:	MMP/MECH-24/GOA/2015-16 Vol.I dated 15.09.2016
b) Period of mining plan/ mining scheme in force :	:	Modified Mining Plan: for year 2016-17 to 2017-2018 (Block period 2013-14 to 2017-2018)

## PART II-TECHNICAL DETAILS

[Followings i.r.o. year (2016-17)]

Annual Return for the year 2016-17 has not been submitted by the lessee till the date of inspection, as due date of submission is 1<sup>st</sup> July of every year for preceding year. Hence, information given below is based on the Data provided by the Agent/ mines manager of the mine and information/proposal given in the Modification of Mining Plan (MMP) approved vide letter no.- MMP/MECH-24/GOA/2015-16 Vol.I dated 15.09.2016.

### I. Scientific Mining (As per latest approved mining Plan/Scheme)

#### 1. Exploration:

Item	Proposals year (2016-17)	Actual work done year (2016-17)	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 during the year	NIL	NIL	
1D.Balance area to be explored to bring geological axis 1 or 2	NIL	NA	
1E.Balance reserve	As per MMP	1.027 mill te. reserve	1.027 mill. Tonnes (Total Resources)

#### 2.Development:

A. Location of development in lease area	Pit No.1	Pit No.1	
B. Separate benches in topsoil, overburden and minerals	yes	yes	
C. Stripping ratio (ore to OB ratio)	1:1.70	1:2.39	
D. Quantity of topsoil generation in m <sup>3</sup>	No proposal	Nil	
E. Quantity of overburden generation in M <sup>3</sup> and in metric Tons	147,742 M <sup>3</sup> 342,000 Tons	202,450 M <sup>3</sup> 475,755 Tons	

#### 3.Exploitation:

A. Number of pit proposed for production	1 No	1 No.	
B. Quantity of ROM mineral production proposed.	201,000 Tons	199,040 Tons	
C. Recovery of saleable/usable mineral from ROM production	201,000 Tons	199,040 Tons	
D. Quantity of mineral rejects generation	Nil	Nil	
E. Grade of Mineral rejects generation and threshold value declared	Nil	Nil	
F. Quantity of Sub-grade mineral	Nil	Nil	
G. Grade of Sub-grade mineral generation	Nil	Nil	
H. Manual/Mechanical method adopted for segregating from ROM	Mechanical	Mechanical	
I. Any analysis for benefaction study proposed and carried out for sub grade mineral	Nil	Nil	
J. Provision of drilling and blasting in mineral benches.	Not Proposed	none	

L. Whether height of benches in overburden and mineral suitable for method of mining proposed.	Yes	Yes	
M. Total area covered under excavation/pits	16.08 Ha.	16.08 Ha.	As mentioned in MMP; cumulative
N. Ore to OB ratio for the pit/mine during the year	1:1.70	1:2.39	
O. Total area put in use under different heads at the end of the year	73.1297 Ha	73.1297 Ha	As mentioned in MMP; cumulative
P. Production of ROM mineral during the last five years period as applicable	2013-14: NIL 2014-15: NIL 2015-16: 240,800 te 2016-17: 201,000 te	2013-14: NIL 2014-15: NIL 2015-16: 11,025 te 2016-17: 199,040 te	Modified Mining Plan approved: for year 2016-17 to 2017-2018 (Block period 2013-14 to 2017-2018)

Q. General remarks of inspecting officers on method of mining etc.:

Mining operations have not been carried out in accordance with the Modification of Mining Plan (MMP) approved vide letter no.- MMP/MECH-24/GOA/2015-16 Vol.I dated 15.09.2016 to the extent indicated below:-

- (i) As per approved MMP, Backfilling of waste in year 2016-17 was approved to be carried out in Pit No.-1 from co-ordinate N1490-N1340/ 0 - E160 up to level 52 mRL (MSL) and in year 2017-18 from co-ordinate N1480-N1340/ E-35– E225 up to level 42 mRL (MSL) in stages. (Ref. Mining & waste disposal chapter with Plate No.-5).

Whereas, it was observed during inspection that, Backfilling of waste in year 2016-17 was carried out in haphazard way up to level about 70 mRL (MSL) and 60 mRL (MSL) in aforesaid respective area. (Ref. Updated Surface Plan, dt. Of survey-01.04.2017). This has further resulted in collapse of lower part of back-filled waste material in to the Pit.

- (ii) As per approved MMP, Plantation by 10,000 saplings was proposed over Backfilled area between co-ordinate N1300-N1600/ E-100–W-200 in year 2016-17 near Dump No.-2. (Ref. PMCP chapter with Plate No.-7).

However, no plantation observed carried out in the aforesaid area during inspection. Hence, In this regard, Violations of rule 11(1) of MCDR,2017 communicated to the party.

4.Waste:

A. Separate dumping of top soil, OB and mineral rejects	yes	yes	
B. Location of top soil, OB and mineral rejects dumps	No proposal for top soil, Overburden / waste proposed to backfill	Overburden/ waste backfilled in the exhausted pit	
C. Number of dumps with in lease area	1 no. dump	1 no. dump	Within Lease area (dead)
D. Location of dumps w.r.t ultimate pit limit	Overburden / waste proposed to backfill	Overburden/ waste backfilled in the exhausted pit	Dead dump Dump No. 2 outside UPL
E. Number of active and alive dumps.	NIL	NIL	

F. Number of dead dumps	-	1 no. dump	
G. Numbers of dumps established	-	-	
H. Whether retaining wall or garland drain all along dumps are there	Yes	Yes	
I. Length of retaining wall or garland drain all along dumps	-	-	Existing/old about 1,600 m retaining wall & 1650m trench/ garland drain
J. Number of settling ponds	-	2 Nos.	

#### 5.Backfilling:

A. Status of part or full extraction of mineral from mined out area before starting backfilling	Full extraction of mineral from mined out area proposed	Being Carried out in mined out area	Deviation observed communicated as violation of rule 11(1) of MCDR,2017 as mentioned above
B. Area under backfilling of mined out area	Exhausted part of pit	Exhausted part of pit ; Cumulative area about 14.5 ha.	
C. Concurrent use of topsoil for restoration or rehabilitation of mineral out area	NA	Nil	
D. Total area fully reclaimed and rehabilitated.	NIL	NA	

#### 6.PMCP:

A. Whether annual report on PMCP submitted on time and correctly, Rule 23E (2)	-	Not submitted for 2016-17 till the date of inspection. Due date 1st July.	
B. Area available for rehabilitation (Ha)	-	-	Deviation observed communicated as violation of rule 11(1) of MCDR,2017 as mentioned above
C. Afforestation done (Ha)	-	Gap Plantation	
D. No. of sapling planted during the year.	-	-	
E. Cumulative no. of plants.	-	143,000 Nos. Mainly on dump area and part of back filled area	
F. Any other method of rehabilitation	Nil	Nil	
G. Cost incurred on watch and care during the year	-	-	
H. Compliance on reclamation and rehabilitation by backfilling (i) voids available for backfilling	Exhausted part of pit	Exhausted part of pit	
I. Compliance on reclamation and rehabilitation by backfilling (ii) voids filled by waste/tailings.	2 .0 ha. at the end of 2017-18	about 1.5 Ha.	
J. Compliance on reclamation and rehabilitation by backfilling (iii) afforestation on backfilling area	10,000 Nos.	Gap plantation	
K. Compliance on reclamation and rehabilitation by backfilling( iv) rehabilitation by making water reservoir	NIL	NIL	
L. Compliance on reclamation and rehabilitation by backfilling (V) any other specific means.	NIL	NIL	

M. Compliance on rehabilitation of waste land within lease (i) afforestation :	NIL	NIL	
N. Compliance on rehabilitation of waste land within lease (ii) area rehabilitation (Ha) :	NIL	NIL	
O. Compliance on rehabilitation of waste land within lease (iii) method of rehabilitation :	NIL	NIL	
P. Compliance of environmental monitoring (core zone & buffer zone)	Monitoring in core and buffer zone	Monitoring being carried out season wise.	

#### II.Conservation:

A. ROM mineral dispatch or grade wise sorting within lease area.	grade wise sorting	grade wise sorting	
B. Method of grade wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	
C. Different grade of mineral sorted out of mines	Yes	Yes	
D. Any beneficiation process at mines	Yes	Yes	

#### III.Environment:

A. Separate removal and utilization of topsoil (Rule 32)	Not Proposed	None	
B. Separate removal and utilization of topsoil (Rule 32)	Not Proposed	NA	
C. Separate dumps for overburden, waste rock, rejects and fines (Rule 32)	yes	yes	OB backfilled ROM stacked separately
D. Use overburden, waste rock, rejects and fines dumps for restoring the lands to its original use.	OB to be backfilled	OB backfilled	
E. Phased restoration, reclamation and rehabilitation of lands affected by mining operation (pits, dumps etc.)	Dump afforestation	Part of the dump afforested	
F. Baseline information on existence of plantation and additional plantation done (Rule-41)	-	143,000 nos. saplings planted.	Mainly on dump area and part of back filled area afforested
G. Survival rate	-	65%	
H. Water sprinkling on roads to control airborne dust :	Water tankers – for Water sprinkling on roads	Water tankers are used for roads to control airborne dust	

#### IV. Compliance on Rule 45:

A. Status of submission of monthly & annual returns	Monthly returns Submitted.  Annual Return for the year 2016-17 has not been submitted till the date of inspection; since due date of submission is 1 <sup>st</sup> July of every year for preceding year.
B. Scrutiny of annual return for information on Mining Engineer, Geologist and Manager :	
C. Scrutiny of annual return on land use pattern for area under pits, reclaimed area, dumps etc.	
D. Scrutiny of annual return on afforestation	
E. Scrutiny of annual return on mineral rejects generation (grade and quantity)	
F. Scrutiny of annual return on ROM stock and /graded ore	

G. Scrutiny of annual return on sale value, Ex. Mines price and production cost	
H. Scrutiny of annual return on fixed assets	
I. Scrutiny of annual return on mining machineries.	

V. Status of compliance of MCDR, 88 including therewith the rectification of outstanding violation of the rules.

Date of last inspection	Violation pointed out	Compliance reported
12.08.2016	Nil	NA

During current inspection, Violation of rule 11(1) of MCDR, 2017 observed and communicated to the party.

(P. PRAKASH)  
DCOM