

MCDR INSPECTION REPORT

General

S. N.	Particulars	Details
1	Name of the Mine	Gumgaon Mine
	Date of Inspection	15.9.2017
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	35.97Ha Forest area 15.61 Non forest 20.36 (total area of all leases 85.90 ha, lease L1- 48.60Ha, L2-1.33Ha & L3- 35.97 Ha Forest-16.16 Ha, Non forest- 69.74 Ha)
3	Mine code	40MSH14006
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/5711/2011
5	Name of the lessee, Address, phone, email and fax number	MOIL LTD, 1-A Katol Road, Nagpur 0712-2806100
6	Village	Gumgaon, Khapa, Rajna & Teghai
7	Taluka/Mandal	Saoner
8	District	Nagpur
9	Pincode	441101
10	State	Maharashtra
11	Post office	Khapa
12	Nearest police station	Khapa
13	Nearest Railway station	Saoner
14	Date of Grant of Mining Lease	1900
15	Date of Execution	1900
16	Date of opening of Mine	1900
17	Date of first Renewal, if applicable and its period & expiry	-
18	Date of second Renewal, if applicable and its period & expiry	: 30.06.2000 TO 29.06.2020
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	-
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Dipankar Shome, Director (Production & Planning) MOIL Bhavan, Katol Road, Nagpur. Dt of appointment as owner: 22.02.17
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri R.Bhattacharya, MOIL LTD, Chikla mine. Ph:9669980999. Dt of appointment as agent- 01.04.2017
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Shri U.S.Bhati, Gumgaon mine, Khapa Post, Saoner Thesil, Nagpur dist. Ph- 9168890003 Date of joining 05/05/2017
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Shri V.M.Khedikar, Dy.Chief (Mines), with Ist class M.M Certificate Gumgaon mine, Dt of joining: 14.02.17
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Arijit Mitra ,Manager (Geo) Dt of joining 01.05.2017
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	NGP/MN/MPLN-258 dt03.06.2005.
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	NGP/MN/MPLN-258 /NGP dt 10.07.2013
27	Mineral(s) granted in lease and proved for mining	Manganese ore

28	Method of Mining(Open cast, Underground)	Underground and Dump Mining.
29	Category (Fully Mechanised, Others or Manual)	mechanized
30	Captive/Non Captive	Non captive

Exploration

SN	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year 2014-15 2015-16 2016- 17	8 8 10	3 2 5	Due to major break down of departmental machine. The back log boreholes will be done by outsourcing in next year.
1b	Exploration over lease area for Geological axis 1 or 2.	G1		
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Moil ltd Rs.32 lakhs	Moil ltd Rs.33.08 lakhs	
1d	Balance area to be explored to bring Geological axis in 1 or 2	21% area is to be explored .		
1e	Balance reserves as on 01.04.2017	3.088 million tonnes		
1f	General remarks of inspecting officer on geology, exploration etc.	Based on the nature of deposit few boreholes can be drilled to prove to deposit in the deeper level also.		

Development

SN	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	-200L, -300L and -400L	As per proposal	
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	nil	nil	
2c	Stripping ratio or ore to OB ratio	nil	nil	
2d	Quantity of topsoil generation in m3	nil	nil	
2e	Quantity of overburden generation in m3	1,70,000m3	109484.58	Dump reject
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	Development work was carried as per the proposal		

Exploitation

SN	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	nil	nil	
3b	Quantity of ROM mineral production proposed	113000	85942	
3c	Recovery of salable/usable mineral from ROM production	80% from ROM	As per proposal	
3d	Quantity of mineral reject generation	5000m3 (U/G)	1183m3	
3e	Grade of mineral reject generation and threshold value declared	10-20%	<12%	
3f	Quantity of sub-grade mineral generation	22500 U/G	14456	

SN	Item	Proposals	Actual work	Remarks
3g	Grade of sub-grade mineral generation	17-18%	As per proposal	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	nil	nil	
3j	Provision of drilling & blasting in mineral benches	nil	nil	
3k	Provision of mining machineries in mineral benches	nil	nil	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	nil	nil	
3m	Total area covered under excavation/pits	nil	nil	
3n	Ore to OB ratio for the pit/mine during the year	nil	nil	
3o	Total area put in use under different heads at the end of year	28.123 Ha	28.123 Ha	
3p	Production of ROM mineral during last five-year period, as applicable	2012-13 75000 2013-14 97000 2014-15 114000 2015-16 104000 2016-17 113000	49062 57835 61385 73742 85942	(Returns are being submitted jointly for all the three leases ie 1,II and III)
3q	General remarks of inspecting officer on method of mining etc.	It is an underground mine and the stoping operations are being carried out overhand flat back cut and fill method.		

Solid Waste Management-Dumping

SN	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	01	01	
4b	Location of topsoil, OB & mineral reject dumps	NW	As per proposal	This is a Waste dump.
4c	Number of dumps within lease area and outside lease area	08		
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	North and eastern side	As per proposal	
4e	Number of active & alive dumps	02		
4f	Number of dead dumps	06	06	
4g	Number of dumps stabilized	06	06	
4h	Whether Retaining wall or garland drain all along dumps are there	nil	nil	Already done in the past years , only maintenance is done from time to time
4i	Length of Retaining wall or garland drain all along dump	nil	nil	

4j	Number of settling ponds	nil	nil	
4k	Specific comments of inspecting officer on waste dump management	It is observed that the plantation is done all the dead dumps and stabilized properly.		.

Solid Waste Management-Backfilling

Solid Waste Management Backfilling				
SN	Item	Proposals	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	nil	nil	.
5b	Area under backfilling of mined out area	nil	nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	nil	nil	
5d	Total area fully reclaimed & rehabilitated	nil	nil	
5e	General remarks of inspecting officer on backfilling, reclamation etc	No proposal of backfilling		

Progressive Mine Closure Plan

SN	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 23E (2). Details should be given in the format as given in Annexure-20.	Yes	Yes	
6b	Management of worked/mined out benches i) Area available for rehabilitation (ha) ii) Afforestation done (ha) iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch & care during the year	NA	nil	
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii) Void filled by waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	i) <u>A) (-)200'L</u> (in RMT)- WINGE(-)200'L to (-)300'L B) <u>(-)300'L</u>:- (in RMT)- HR -130 ,OD-130, XCUT – 40, WINGE(-)300'L to – 400'L- 30 C) <u>(-) 400 'L</u>:- (in RMT)- HR- 60, OD- 60, XCUT- 30 HR- 190 XCUT- 70 OD- 190 W/R- 90 Waste rock and sand NA	i) <u>Between 200'L and -100'L</u>:- Stope block – 90x 30 x 06 (ch 34-ch 37) <u>Between – 200'L and 100'L</u>:- Stope block – 90x 30 x 06 (ch37-ch40) <u>Wings between (-)200'L and (-)300'L</u>:- A)WZ -3 B)WZ+1 HR-65 X CUT- 124.35 OD- 289.50 W/R- 112.60 As per proposal nil	
6d	Compliance of Rehabilitation of waste land within lease	nil	nil	

SN	Item	Proposals	Actual work	Remarks
	i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation			
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Quarterly monitoring of environmental parameters	As per proposal and within limits	
6f	General remarks of inspecting officer on PMCP compliance & progressive closure operations	It is being carried out as per the proposal		

Mineral Conservation

SN	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting	Grade wise sorting	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual	Manual	
7c	Different grade of mineral sorted out at mines	5 different grades produced between (25-47%) Mn>42%,-75-+25mm- (Lump) Mn(38-40)%,-25mm-+6mm(Lump) Mn(30-35)%,-75-+25mm-(Lump) Mn(30-35)%,> - 6mm- (Fines) Mn<20%,- (subgrade) Mn(21- 27%)- (avg- 25% subgrade from dumps)	yes.	
7d	Any beneficiation process at mines	nil	nil	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Separate mineral dumps were available with in the lease area and grade wise mineral sorting are done manually		

Environment

SN	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	nil	Nil	
8b	Concurrent use or storage of topsoil	nil	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	1 Dump	yes	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Used for backfilling in underground	yes	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	nil	nil	
8f	Baseline information on existence of plantation & additional plantation	2000 saplings	yes.	A cumulative of 122930 saplings are planted on waste dumps and outside mine area till date
8g	Survival rate	80%	70%	
8h	Water sprinkling on roads to control airborne dust	By using water tankers	As per proposal	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	To keep the aesthetic beauty intact of the area, suppression of dust on the mine is being done by sprinkling of water. A cumulative of 122930 saplings are planted on waste dumps and outside mine		

		area till date
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Compliance of Rule 45

SN	Item	Comments	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted jointly upto Aug 2017 for all the three leases A.R. submitted for the year 2016-17 , jointly upto Aug 2017 for all the three leases.	

SN	Item	Details given in A.R.	Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	yes	Yes found correct	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	yes	Yes found correct	
9d	Scrutiny of Annual return on afforestation	yes	Yes found correct	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	yes	Yes found correct	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	yes	Yes found correct	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	yes	Yes found correct	
9i	Scrutiny of Annual return on fixed assets	yes	Yes found correct	
9k	Scrutiny of Annual return on mining machineries	yes	Yes found correct	

Details of violations observed during current inspection and compliance position of earlier violation pointed out:-

A) Status of Violation of earlier inspection nil

B) violation observed during the inspection nil

KEWAL KRISHAN

Sr. Mining Geologist

(Name of inspecting officer with designation and date)