

MCDR INSPECTION REPORT

General

S. N.	Particulars	Details
1	Name of the Mine	Gumgaon Mine
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	85.90 ha(composite lease of three leases(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	1903
15	Date of Execution	1903
16	Date of opening of Mine	1903
17	Date of first Renewal, if applicable and its period & expiry	-
18	Date of second Renewal, if applicable and its period & expiry	Lease I : 01.07.2002 TO 30.06.2022 Lease II :24.02.14 to 31.03.2020 Lease III: 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 T.K.Pattnaik, Director (commercial) MOIL Bhavan, Katol Road, Nagpur. Dt of appointment as owner: 04.09.16
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri A.V.Masade, MOIL LTD, Munsar mine. PH:07114-202501
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Shri A.R.Guladhe, Gumgaon mine, Khapa post, saonerthesil, Nagpur dist. 07113-286123
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Shri D.R.Dekate, Chief (Mines), with Ist class M.M Certificate Gumgaon mine, Dt of joining: 02.05.16
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	yes
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

29	Category (Fully Mechanised, Others or Manual)	Semi mechanized(A-OTFM)
30	Captive/Non Captive	Non captive

Exploration

SN	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year 2014-15 2015-16	8 8	3 2	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.	1	1	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Moil ltd	Moil ltd Rs.35,52,478/-	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Area from ch.50 to ch.57 is to be explored in detail.	-	It is informed by the lessee that this particular area the exploration will be done by outsource drilling as the ore is available at greater depth.
1e	Balance reserves as on 01.04.2016	-	5.7 million tonnes	
1f	General remarks of inspecting officer on geology, exploration etc.			Area between 51 to 57 CH has to be explored details for further addition of reserves to the mine.

Development

SN	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	UG Dev for 2015-16 is 540 mtr	Ug dev. Is 554.15 m in the year 2015-16	14.15mts more developed than the proposed.
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	N.A	N.A	Not applicable
2c	Stripping ratio or ore to OB ratio	N.A	N.A	Not applicable
2d	Quantity of topsoil generation in m3	N.A	N.A	Not applicable
2e	Quantity of overburden generation in m3	N.A	N.A	Not applicable it is underground mine
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.			14.15mts more developed than the proposed.(100.2% more than the targeted)

Exploitation

SN	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	NIL	NIL	

SN	Item	Proposals	Actual work	Remarks
	production proposed			300'level.
3c	Recovery of salable/usable mineral from ROM production	83200 (80%)	67683 (91%)	In the western side of lease the thickness of the ore is around 50 m due to which the recovery is good.
3d	Quantity of mineral reject generation	21000	6059	
3e	Grade of mineral reject generation and threshold value declared	10-12%	<12%	
3f	Quantity of sub-grade mineral generation	49140	2540	
3g	Grade of sub-grade mineral generation	17-18%	17-18%	
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	No	No	
3j	Provision of drilling & blasting in mineral benches	NA	NA	Not applicable
3k	Provision of mining machineries in mineral benches	NA	NA	Not applicable
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	NA	NA	Not applicable it is underground mine
3m	Total area covered under excavation/pits	NA	NA	As per approved plan
3n	Ore to OB ratio for the pit/mine during the year	NA	NA	Not applicable
3o	Total area put in use under different heads at the end of year	28.123 ha	25.45 ha	The construction of quarter is being done phase wise. The balance area will used in next phase.
3p	Production of ROM mineral during last five-year period, as applicable	390000	242024	Back log of dev at -300'level.
3q	General remarks of inspecting officer on method of mining etc.			Quantity of ROM mineral production proposed has not been achieved due to lack of development at -300 level RL. Recovery of salable mineral from ROM production increased up to 91% due to wide ore body in the western side of the lease (i.e. up to 50Mts).

Solid Waste Management-Dumping

SN	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	NA	NA	Not applicable it is underground mine
4b	Location of topsoil, OB & mineral reject dumps	One dump in lease III	One dump in lease III	
4c	Number of dumps within lease area and outside lease area	01(waste dump)	01(waste dump)	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Details given at end of report	Details given at end of report	In line with the approved document.
4e	Number of active & alive dumps	01	01	
4f	Number of dead dumps	06	06	Plantation is done on dumps

4h	Whether Retaining wall or garland drain all along dumps are there	Yes	Yes	
4i	Length of Retaining wall or garland drain all along dump	Nil	Nil	Garland drains already existing
4j	Number of settling ponds	01	01	
4k	Specific comments of inspecting officer on waste dump management			It is observed plantation over all the dead dumps and stabilized dumps.

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	NA	NA	As per approved plan
5b	Area under backfilling of mined out area	NA	NA	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	NA	NA	
5d	Total area fully reclaimed & rehabilitated	NA	NA	
5e	General remarks of inspecting officer on backfilling, reclamation etc			All the existing old dumps are reclaimed by plantation in the past. No reclamation is proposed in current year.

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.	NA	NA	
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	i) Nil ii) Nil iii) Nil iv) 120930 v) Nil vi) Nil	I. Nil II. Nil III. Nil IV. 120930 V. Nil VI. 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) Nil ii) Nil iii) Nil iv) Nil v) Nil	i) Nil ii) Nil iii) Nil iv) Nil v) Nil	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha)	i) Nil ii) Nil iii) Nil	i) Nil ii) Nil iii) Nil	

SN	Item	Proposals	Actual work	Remarks
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Quarterly monitoring of air, water and noise is done	Quarterly monitoring of air, water and noise is done	
6f	General remarks of inspecting officer on PMCP compliance & progressive closure operations			

Mineral Conservation

SN	Item	Proposals	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	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual	Manual	
7c	Different grade of mineral sorted out at mines	Yes	Yes	
7d	Any beneficiation process at mines	No	No	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues			Storage area of different grade of mineral further needs to be improved by mine management.

Environment

SN	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	NA	NA	Not applicable
8b	Concurrent use or storage of topsoil	NA	NA	Followed as per approval
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes	Yes	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Waste rock is dumped separately in earmarked dumps	Waste rock is dumped separately in earmarked dumps	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Restoration will be done during mine closure period.	Restoration will be done during mine closure	
8f	Baseline information on existence of plantation & additional plantation	Plantation on waste dumps and outside mine area is done in past	120930 saplings are planted on waste dumps and outside mine area in past	
8g	Survival rate	80%	70%	
8h	Water sprinkling on roads to control airborne dust	Yes	Sprinklers and water tankers are deployed	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			

Compliance of Rule 45

SN	Item	Comments	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted upto sept 2016 A.R. submitted for the year 2015-16	Compliance of rule 45 was observed.

SN	Item	Details given in A.R.	Observation of I/Officer	Remarks
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9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Available as given in annual return	As per returns received	Verified
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Available as given in annual return	Not applicable	
9d	Scrutiny of Annual return on afforestation	Available as given in annual return	No proposals	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Available as given in annual return	As per returns received	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Available as given in annual return	As per returns received	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Available as given in annual return	As per returns received	
9i	Scrutiny of Annual return on fixed assets	Available as given in annual return		
9k	Scrutiny of Annual return on mining machineries	Available as given in annual return		

Note for 4d:

Dump No.	Dump type TS/OB/MR/SGM	Co-ordinates		Area (Hect.)	Height (M)	Angle	Capacity (cu mtr)
		X	Y				
WD-1	OB	1984	2570	2.86	16.00	32	Plantation on dumps is done.
WD-2	OB	1836	2590	2.24	08.00	30	
WD-3	OB	1870	2444	2.63	15.00	26	
WD-4	OB	1700	2310	3.38	10.00	30	
WD-5	OB	1700	2060	2.36	08.90	34	
WD-6	OB	1870	1640	2.58	06.00	29	
BD-1	Black dump	2000	2460	1.84	12.00	26	
BD-2	Black dump	1980	2060	0.08	06.00	36	

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

This mine was earlier inspected on 28/01/2016 for MCDR. There are no outstanding violations on this mine. During the current inspection deviations from the approved SoM have been observed for which violation of 13(1) has been pointed out to the party vide letter MAH/NAG/Mn-79/NGP -Vol.VI dated 14/12/2016.

**Dr. Omkesha Murthy MG
Senior Mining Geologist**