

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

MCDR INSPECTION REPORT

Nagpur regional office

Mine file No : MAH/CND/FL-1/NGP

Mine code : 24MSH08001

- (i) Name of the Inspecting : 204) SNEHANKIT H. CHATTE
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : Shri. V. Kalyankar, Manager (mines) & Shri. P. Sonpip
Official with
Designation
- (iv) Date of Inspection : 16-Aug-21
- (v) Prev.inspection date : 12-Feb-20

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : DONGARGAON
- (b) **Registration NO.** : IBM/5319/2011
- (c) **Category** : B Manual
- (d) **Type of Working** : Opencast
- (e) **Postal address**
- State : MAHARASHTRA
- District : CHANDRAPUR
- Village : DONGARGAON
- Taluka : WARORA
- Post office : DONGARGAON (RLY)
- Pin Code :
- FAX No. : (0712)-234239
- E-mail :
- Phone : 232775 (M. D.), 233101, 233411
- (f) **Police Station** :
- (g) **First opening date** : 19-Jul-89
- (h) **Weekly day of rest** : SUN
2. **Address for correspondance** : 3RD FLOOR, UDYOG BHAVAN,
CIVIL LINES,
NAGPUR-440 001
3. (a) **Lease Number** : MSH0001
- (b) **Lease area** : 31.22
- (c) **Period of lease** : 50
- (d) **Date of Expiry** : 19-Dec-38
4. **Mineral worked** : FLUORITE Main

5. Name and Address of the

Lessee : M/s Maharashtra State Mining Corporation
 5, Abhyankar Nagar Nagpur -
 10 NAGPUR MAHARASHTRA
 Phone:
 FAX :

Owner : SHRI S.A. TAGDE
 CHANDRAPUR MAHARASHTRA
 Phone:
 FAX :

Agent : SHRI P.P. SONI
 NAGPUR MAHARASHTRA
 Phone:
 FAX :

Mining Engineer

Name : SHRI S.L. TUPATE, Full Time
 Qualification : MINE FOREMAN'S CERTIFICATE
 Appointment/ : 04-Jun-04
 Termination date

Geologist

Name : SHRI P.P. SONI, Full Time
 Qualification : MSc(Geo.)
 Appointment/ : 01-Sep-03
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	15-Feb-02
Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	08-Jul-08
	:	FMCP under 23C(1)	27-May-13
	:	Modif.of approved Mining Plan	19-Jul-16
	:	MP review under 17(1) MCR 2016	15-Jul-19

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	As per the exploration proposals given in the approved Review of Mining plan dated 15.07.2019, it was proposed to carry out 47 nos. of boreholes during the year 2019-20 (PBH1 to PBH47)	NIL	Violation letter for the same was issued on 03.08.2021
1b	Exploration over lease area for geological axis 1 or 2	As per the exploration proposals given in the approved Review of Mining plan dated 15.07.2019, it was proposed to carry out 47 nos. of boreholes during the year 2019-20 (PBH1 to PBH47)	NIL	Violation letter issued on 03.08.2021
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Exploration in the year 2018-19 was proposed in form of boreholes to be drilled by M/s MSMC Ltd was nil. Proposed expenditure was not given.	Nil as no exploration was carried out.	

1d	Balance area to be explored to bring Geological axis in 1 or 2	The lessee has proposed to drill 47 nos. of Boreholes all over in the lease area to find out the continuity of the ore depth wise and the extension of the same in both direction.	At least 26 ha area is yet to be explored which is not under the Surface Rights held by the lessee.	
1e	Balance reserve as on 01/04/20		As on 01/04/2021, Balance reserves are: 111- 2, 19, 699 T 121- 63, 860 T 221- 100000 T	
1f	General remarks of inspecting officers on geology, exploration etc		In the lease area, the fluorite is seen associated with chert and is occurring as crystals, amorphous/cryptocrystalline form, sometime "Geodes". The exposed mineralized zone is in the N-W direction, showing a "Dumbel shape" i.e. swollen in center and tapering at both end. On top there is soil cover, and the host rocks are siliceous/chert shales and limestone patches are exposed prominently.	Additional exploration is required to prove depth continuity and ascertaining grade of the ore occurring in the area while going deeper levels.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Development is proposed in Pit I at location N 300 to N 500 and E 450 to E 700 (Local grid as per the Development Plan)	Location of the development is as per the proposals.	

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes, separate excavation of top soil, Overburden and minerals is proposed through making separate benches wherever possible	Top soil removal is almost nil. Further the mineral is associated with chert and occurs mostly in crystals, amorphous / cryptocrystalline form, it is not possible to maintain separate bench in overburden/ waste and mineral. There are 4 benches in OB/waste and mineral with approximately 3.0 m height for each bench.	
2c	Stripping ratio or ore to OB ratio	1:3.36 (Ore to 1:1.21 Waste Ratio)	as per the proposal	Due to working area limitations, development and production are lower than the proposals.
2d	Quantity of topsoil generation in m3	NIL	NIL	No additional area broken and working was restricted to existing pit
2e	Quantity of overburden generation in m3	NIL	Overburden generation was Nil. Waste generation during 2020-21 was approximately 3137 M3.	

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Development of the pit is adequate considering the type and formation of the deposit. Fluorite is occurring in pockets (discontinued vein) mostly which is being exposed and exploited. Further development of the pit is difficult due to limitation of area held under surface rights. Only 5.55 Hect o the area is having surface right. Thus, additional land acquisition especially in the strike of orebody is essencial for extending the existing pit to deeper horizons.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	one pit.	One pit is there with approximate depth of 12 m having 4 benches in all and one small sump at the lowest level. Pit is located at N 300 to N 500 and E 450 to E 700 (Local grid as per the Development Plan).	
3b	Quantity of ROM mineral production proposed	Year 2020-21 = 6756 T Year 2019-20 = 6756 T	Year 2020-21 = 1141 T Year 2019-20 = 1442T	Less production due to non availability of market.
3c	Recovery of sailable/usable mineral from ROM production	95% of the ROM shall be recovered as ore and rest shall be rejects.	As per the proposal	
3d	Quantity of mineral reject generation	NIL	Year 2020-21= 2023 M3	Murom and Cherty waste generated

3e	Grade of mineral rejects generation and threshold value declared.	Not specified but threshold value is CaF ₂ : 5% (Minimum)	Year 2020-21= 2023 M3
3f	Quantity of sub grade mineral generation.	Not Applicable	Not Applicable
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No such proposals	Nil
3j	Provision of drilling and blasting in mineral benches	Fluorite occurs within shear zone therefore use of drilling and blasting would also be very limited. Small diameter drill holes (34mm) would be drilled by compressed air operated jack hammers, and small dia explosive 25mm would be used for blasting, if required.	As per the proposals, Jack Hammer drill with 34 mm dia and small dia Ammonium Nitrate explosive in cartridge form is being used for blasting as and when required
3k	Provision of mining machineries in mineral benches	Manual working is proposed. Machinery to be used is limited to Jack Hammer drill machine, jeep, tractor and 10 T tipper for material shifting. No excavator is proposed to be used.	As per the proposals

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	3 m bench height is proposed as method of mining is manual.	4 Benches with maximum 3 m height are being maintained
3m	Total area covered under excavation/pits	Proposed area utilization under pits is 2.25 ha (including roads).	Actual area under pits is as per the proposals (2.25 ha) and no additional area has been broken.
3n	Ore to OB ratio for the pit/mine during the year.	1:3.36 (Ore to Waste Ratio)	
3o	Total area put in use under different heads at the end of year		covered under current o/c working- 2.25Ha, used for waste disposal- 1.5 Ha, Work done under PMCP- 1.30Ha
3p	Production of ROM mineral during the last five year period as applicable	Year 2020-21= 6756T Year 2019-20= 6756T Year 2018-19= 6751T Year 2017-18= 6747T Year 2016-17= 6700T	Year 2020-21= 1141T Year 2019-20= 1442T Year 2018-19= 1078.97T Year 2017-18= 1314.48T Year 2016-17= 1175.32T
3q	General remarks of inspecting officers on method of mining etc.		Method of mining is manual as per the deposit occurring in the lease area. Benches are being maintained accordingly with 3 m height and minimum 3 m width. Lease area utilization suggests that complete area which is presently held under surface rights has been utilized and hence, further development may require acquisition of land in the adjoining areas

Solid Waste Management - Dumping:

Sl.No.	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Yes	3 small old Top soil dumps, 1 old inactive and two active waste dump	
4b	Location of topsoil, OB and mineral reject dumps	Top Soil: No proposals as nil top soil is proposed to be generated (all dumps are old)OB/Waste Dumps: One old inactive dump, One active dump and one additional dump proposed in the Eastern Part	Location of the dumps stacks are as below: Top Soil: 2 small dumps at N450 to N650 & E400 to E500, 1 dump N300 toN400 & E700 to E800Waste Dumps: 1 inactivedump at N250 to N300 & E500 to E600, 1 activedump at N300 to N400 & E550 to E650, 1 small active dump at N300 to N350 & E450 to E500	
4c	Number of dumps within lease area and outside of lease area	All dumps/stacks are within the lease area	As per the proposals	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	outside UPL	outside UPL	
4e	Number of active and alive dumps.	One dump is active and alive	As per the proposals	
4f	Number of dead dumps.	One inactive dump	One inactive dump	
4g	Number of dumps established.	No such proposals	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there.	Construction of Parapet Wall and Garlain drain around dump	one Parapet Wall around dump seen & one Garlain drain around dump constructed seen	
4i	Length of Retaining wall or garland drain all along dumps	20 m	50 m	
4j	Number of settling ponds	NIL	NIL	
4k	Specific comments of inspecting officer on waste dump management			Waste dump management was done as per proposals given in the approved mining plan.

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.	No such proposals as mineral is not exhausted	As per the proposals.	
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)	No such proposals	Nil	
5d	Total area fully reclaimed and rehabilitated	NIL	NIL	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			In post mining land use the dumps on the surface will be vacated and backfilled in extracted pits and remaining above benches will remain as a shallow syncline/ depression in the pit in which the lowermost part of Ultimate pit will remain as a water reservoir.

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
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6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	PMCP report is required to be submitted before 1st July of every year setting forth the extent of protective and rehabilitative works carried out as envisaged in the approved mine closure plan, and if there is any deviation, reasons thereof.	Yes report submitted	
6b	Area available for rehabilitation (ha) .	NIL	NIL	
6c	afforestation done (ha).	No proposals	nil	
6d	No. of saplings planted during the year	45	115	
6e	Cumulative no .of plants	Nil	1193	survival 90%
6f	Any other method of rehabilitation	nil	nil	
6g	Cost incurred on watch and care during the year	nil	Rs. 5,50,000/-	
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 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)	Environment monitoring proposed	Environment monitoring is being done and parameters are within limit.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			In PMCP work plantation activity done within and outside lease area, near office area and other acquired land.

Mineral Conservation:

Sl.No.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Year 2020-21= 6756 T	Year 2020-21= 1141 T	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	
7c	Different grade of mineral sorted out at mines.	CaF2- 30- 65% 80-85%	CaF2- 30- 65% 80-85%	
7d	Any beneficiation process at mines .	No such proposals	NIL	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Mineral conservation aspect is being dealt satisfactorily as apart from waste, complete ROM is being sorted into various grades and saleable grade is sold alongwith stacking of mineral rejects for future usage

Environment:

Sl.No.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes	Separate removal of top soil was proposed and carried out in previous years that resulted in facilitation for carrying out plantation activities in and around the lease area. Further, remaining amount of top soil is stacked within the lease area for future utilization	
8b	Concurrent use or storage of topsoil	No such proposals for the year	Previously, concurrent use and storage, both activities has been carried out.	

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes	Yes available	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposal	Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No such proposal	Nil	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Yes	Yes, baseline information has been provided in the Mining Plan. Additional plantation done is being reported in the Annual Returns.	
8g	Survival rate	No such proposals	60-70%	
8h	Water sprinkling on roads to control airborne dust	Water sprinkler with water tanker	yes provided	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty in and around the area is satisfactory as in total 1136 saplings have been planted by the lessee in and around the lease area and method of working is manual

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	AR to be submitted online on or before 30th June every year for the preceeding year MR to be submitted on or before 10th of every month for previous month	M.R. Submitted up to July 2021 & Annual Rturn for the Yr 2020-21 not yet submitted.	Advice letter is being issued
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Annual Rturn for the Yr 2020-21 not yet submitted. However during inspection it was informed the appointment of Mining Engineer & Geologist i.r.o. Shri. V. Kalyankar, Manager (Mines) & Shri. P. Sonpipare, Geologist	fresh notice of appointment of Mining Engineer & Geologist i.r.o. Shri. V. Kalyankar, Manager (Mines) & Shri. P. Sonpipare, Geologist not submitted in Office	Violation issued
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Annual Rturn for the Yr 2020-21 not yet submitted. However during inspection it was informed :- area under O/c mining- 2.25 Ha, Occupied by plant, building etc- 1.50Ha, work under PMCP- 1.30Ha	As per the proposals	

9d	Scrutiny of Annual return on afforestation	Annual Return for the Yr 2020-21 not yet submitted. However during inspection it was informed 195 nos. of afforestation carried out.	information seem correct
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Annual Return for the Yr 2020-21 not yet submitted. However during inspection it was informed 2023m3	seem correct
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Annual Return for the Yr 2020-21 not yet submitted. However during inspection it was informed 1002.12 T	Provided in Monthly returns,, Stock was not measured but data furnished seems more or less correct
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Annual return for the year 2020-21 not yet submitted till this report preparation	NIL
9h	Scrutiny of Annual return on fixed assets	Annual return for the year 2020-21 not yet submitted till this report preparation	NIL
9k	Scrutiny of Annual return on mining machineries	Annual Return for the Yr 2020-21 not yet submitted. However during inspection it was informed :- Air compressor-1, tipper-1, pumps-2	information furnished seems correct

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

Violation observed			Show cause position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on
MCDR17 Rule 11(1)	03-Sep-21				
MCDR17 Rule 55(1) (3)	03-Sep-21				

Date :

(SNEHANKIT H. CHATTE)

Indian Bureau of Mines