

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

MCDR inspection REPORT

Goa regional office

Mine file No : MAH/KLP/Bx-9/GOA

Mine code : 07MSH13008

- (i) Name of the Inspecting : **NKK**) **NARESH KUMAR KATARIYA**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : S/SHRI G.R.NAGARAJ, MM &ME, SACHIN PATIL, LESSEE'S RE
Official with
Designation
- (iv) Date of Inspection : 17-APR-23
- (v) Prev.inspection date : 09-MAR-22

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **GIRGAON**
- (b) **Registration NO.** : **IBM/778/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :
State : MAHARASHTRA
District : KOLHAPUR
Village : GIRGAON
Taluka : SHAHAWADI
Post office : YELWANJUGAI
Pin Code : 415101
FAX No. : 0831-2429968
E-mail : pkulkarni2007@yahoo.co.in
Phone : 0831-2427187, 9880025007
- (f) Police Station : SHAUWADI
- (g) First opening date : 20-DEC-02
- (h) Weekly day of rest : SUN
2. Address for : Bharatesh Construction Company
correspondance : 34/35, Corporation Complex,
Goa-Ves, Hindwadi, Belgaum-590011
3. (a) Lease Number : MSH0243
- (b) Lease area : 71.42
- (c) Period of lease : 30
- (d) Date of Expiry : 04-FEB-32
4. Mineral worked : BAUXITE Main

5. Name and Address of the

Lessee : BHARTESH CONSTRUCTION COMPANY
Shop No-34, Corp. Complex
Goaves, Hindwadi, BELGAUM
KARNATAKA
Phone:0831-2427187
FAX :0831-2429968

Owner : SURENDRA T KODACHWAD
SHOP NO-34/35, CORPORATION
COMPLEX GOA-VES, HINDWADI
BELGAUM KARNATAKA
Phone: 0831-2427187
FAX : 0831-2429968

Agent : SHRI PRAKASH KULKARNI,
Shop No 34-35, Corporation
Complex, GoaVes, Hindawadi,
Belgaum 590001. BELGAUM
KARNATAKA
Phone: 0831-2427187
FAX : 0831-2429968

Mining Engineer

Name : G.R.NAGARAJA, Full Time
Qualification : B.Sc. AMIE (MINING)
Appointment/ : 13-JUN-18
Termination date

Geologist

Name : GIRISH A.PATIL, Full Time
Qualification : MSc. GEOLOGY
Appointment/ : 01-SEP-13
Termination date

Manager

Name : G.R.NAGARAJA
Qualification : AMIE (MINING)
Appointment/ : 13-JUN-18
Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	07-DEC-00
Plan/Scheme of Mining	:	Modif.of approved Mining Plan	17-OCT-02
	:	Mining Scheme rule 12 MCDR1988	16-SEP-05
	:	Mining Scheme rule 12 MCDR1988	28-MAR-12
	:	Modif.approved Mining Scheme	23-JAN-15
	:	Mining Scheme rule 12 MCDR1988	20-APR-15
	:	Modif.approved Mining Scheme	06-DEC-18
	:	MP review under 17(1) MCR 2016	07-FEB-20
	:	MP modif under 17(3) MCR 2016	02-JUN-22

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NIL	NIL	The area is covered under G1 level of exploration as per records.
1b	Exploration over lease area for geological axis 1 or 2	G-1 axis	G-1 axis	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not applicable	NA	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	
1e	Balance reserve as on 01/04/20		Reserves as on 01.04.2023 - 111- 1250462 MT	Total 40% of Resources is considered as Reserve under 111 at end of FY 22-23
1f	General remarks of inspecting officers on geology, exploration etc			Local Geology of the lease area is Laterite - 3.5 m to 6 m, bauxite - 1 m to 4 m. Exploration has been carried out through trial pits. Balance reserves are within the mining lease area in the form of float ore.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	1864000-1863560 380040 -380240	1864000-1863560 380040 -380240	Float ore Mining Carried out in proposed area along with demineralization of old workings to back fill the voids
		1863860-1863220 379900 -380260	1863800-1863260 380040 -380240	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Mixed Benches, Float workings only	Mixed Benches, Float workings only	
2c	Stripping ratio or ore to OB ratio	1:1.5	1:1.17	For 239950MT Production 281190 MT Interwaste encountered as reported by lessee.
2d	Quantity of topsoil generation in m3	Nil	Nil	No Top Soil Encountered
2e	Quantity of overburden generation in m3	240000 CUM	187460CUM	OB used for Back filling of demineralised voids of float area.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Deposit is only float ore. Working is being carried out to win float ore.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2 Pits	2 Pits	Demineralisation was also in progress in some old mined out area.
3b	Quantity of ROM mineral production proposed	240000 MT	239950 MT	

3c	Recovery of sailable/usable mineral from ROM production	40% in Float ore	46% in Float ore achieved	Some part of Float ore exhibiting higher recovery.
3d	Quantity of mineral reject generation	Nil	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	Below 30% Al2O3	Below 30% Al2O3	
3f	Quantity of sub grade mineral generation.	Nil	Nil	
3g	Grade of sub grade mineral generation	Nil	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	
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	No	No	Drilling & Blasting not required

3k	Provision of mining machineries in mineral benches	Excavator back hoe -9 withBreaker attachment- Dumper 15T - 14 Dumper 9 T - 12 Wheel loader - 3 Mobile Crusher - 2 Mobile Screening Plant - 2 Water tankers 4	Excavator back hoe -9 withBreaker attachment- Dumper 15T - 8 Dumper 9 T - 10 Wheel loader - 3 Mobile Crusher - 2 Mobile Screening Plant - 2 Water Tankers 4
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	2.5 m	Bench height of about 2.5 m are being maintained in Float workings
3m	Total area covered under excavation/pits	14.53.ha	12.4.ha
3n	Ore to OB ratio for the pit/mine during the year.	1:0.66	1:0.85
3o	Total area put in use under different heads at the end of year	Area under Mining: 74.8239HA Additional requirement: 6.4357 HA Waste Dump: 0.2548 HA Reclaimed & Rehabilitated: 21HA	Area under Mining: 74.8239HA Additional requirement: 4.3057 HA Waste Dump: 0.2548 HA Reclaimed & Rehabilitated: 21HA Back filling: 2HA

3p	Production of ROM mineral during the last five year period as applicable	2018-19:156000 2019-20: 240000 2020-21: 240000 2021-22: 240000 2022-23: 240000 (in tonnes)	2018-19: 150750 2019-20: 238070 2020-21: 161600 2021-22:167900 2022-23: 239950 (in tonnes)
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3q	General remarks of inspecting officers on method of mining etc.	Opencast float working is being carried out by using shovel & dumper combination.
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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping of OB/waste (Temporary) is proposed	Old Inactive Dump & Restored dumps maintained	Top soil not encountered, the entire float ore is processed, Intercalations- (Screened waste fines), generated is used for Backfilling mined out area. All the available ore is suitably blended and dispatched as reported by lessee.
4b	Location of topsoil, OB and mineral reject dumps	1862820- 1863040 380240-380400 1863360- 1863520 380220-380360 1863230- 1863380 380140-380260	1862980 - 1863040 380320 - 380400 1863540-1863800 380260-380160 1863380-1863480 3800020-379960 1863500-1863540 380000-379960	Location of Back filled Voids. The voids generated during boundary workings back filled to restore the topography.

4c	Number of dumps within lease area and outside of lease area	Lease area = 1No	Lease area = 1No	In active Waste Dump
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Out side the UPL	Out side the UPL	
4e	Number of active and alive dumps.	12	12	Dumps of the OB & screened material.
4f	Number of dead dumps.	6	6	Small old dumps.
4g	Number of dumps established.	2	2	
4h	Whether Retaining wall or garland drain all along dumps are there.	Proposed.	Provided around the OB dumps.	
4i	Length of Retaining wall or garland drain all along dumps	R wall-60m G drain - 60m	Retaining wall - 135m Garland drain =100m	
4j	Number of settling ponds	Not specified	Four settling ponds without pitching	
4k	Specific comments of inspecting officer on waste dump management			The overburden/waste generated is being utilized for backfilling of mined out area.

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.	Back filling is proposed only after complete extraction of ore & demineralization.	Extracted ore, in the Boundary area, the old workings demineralized before Back filling.	Back filling is done only after complete extraction & demineralization.

5b	Area under backfilling of mined out area	1.77 Ha	2.0 Ha	Intercalation/ fines generated in Float ore used for Back filling demineralized Voids.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Nil	Nil	No Top soil available in lease area during the RY
5d	Total area fully reclaimed and rehabilitated	NIL	NIL	Backfilled area allowed to stabilise & Plantation being carried out in phased manner
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Overburden / waste is being used for restoration & rehabilitation of mined out area. Backfilling is being carried out after full extraction of ore & demineralization.

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).	Yes	Submitted	
6b	Area available for rehabilitation (ha) .	1.77	2.0	Voids created due to Boundary working back filled along with other voids

6c	afforestation done (ha).	1.77	0.5	Back filled area allowed to stabilize for a season. Afforestation will be carried out in the following season
6d	No. of saplings planted during the year	2000	1000	Plantation was in progress in phase wise manner on the Back filled area after the settling of the material.
6e	Cumulative no .of plants	13500 Saplings 14.69 HA	10200 Saplings 6.4 HA	planted
6f	Any other method of rehabilitation	Not proposed	Not done	
6g	Cost incurred on watch and care during the year	Not specified	No record.	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D	140x120x3 170x40x3 80x60x6 140x50x6	410x10x6 80x55x6 130x80x6 80x14x6	Other voids during boundary workings demineralized & back filled using Screened waste fines.
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	2000 Saplings	1000 saplings	Back filled area is being settled to satablize, hence Afforestation is carried out in the phased manner.

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not proposed	200x80 sq m	Rain water is harvested in 1.6 HA
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not proposed	Not done	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not proposed	Not done.	
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	Not proposed	NA	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes	Environmental Monitoring is being done periodically and the parameters are within permissible limit.	Env. Monitoring is found Up to date.

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Overburden / waste is being used for restoration & rehabilitation of mined out area. PMCP is being done as per approved document. Back filled area is being settled to stabilize, hence Afforestation is carried out in the phased manner.
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Mineral Conservation:

Sl.No.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting in the lease area.	Gardewise sorting of ore is being done in the lease area Al ₂ O ₃ +40/-45 Al ₂ O ₃ +45/-50 SiO ₂ < 12	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Dry Crushing & Screening with Mobile Screening Plant	
7c	Different grade of mineral sorted out at mines.	Grade wise sorting +40 to -45 Al ₂ O ₃ +45 to -50 Al ₂ O ₃ < 12 SiO ₂	< 40 % Al ₂ O ₃ 40- 45 % Al ₂ O ₃ 45-50% Al ₂ O ₃ < 12 SiO ₂	
7d	Any beneficiation process at mines .	No	No	Only Crushing of ore & Dry Screening of Float ore carried out.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Mineral processing is being carried out by only Dry Crushing & Screening for Grade wise sorting of ore.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not proposed	No Top Soil Encountered in the RY.	The working are is devoid of top soil in the RY.
8b	Concurrent use or storage of topsoil	NA	NA	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes	Found as per approved document.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	360000 MT of OB is proposed to use for the restoring the land.	281190 MT OB is used in the RY.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	R & R by backfilling & plantation.	Reclamation Carried out in Voids created after Float Ore mining.	Being Done by making a suitable Profile, Back filling and Plantation
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Plantation is proposed	10200 Saplings planted in 6.4 Ha area.	Astana Babul, Karanj, Jambul and Amla planted in Back filled Reclaimed areas
8g	Survival rate	75%	75%	
8h	Water sprinkling on roads to control airborne dust	Yes	Water Sprinkling carried out on haul roads with in mines, Transport Roads using 3 No of water Tankers.	

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Water tankers/sprinklers are deployed for dust suppression. Aesthetic beauty in and around mines is found well.
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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		MR Submitted up to =Mar 2023 AR Submitted up to = FY 21-22 online on 14.06.2022	Annual Return for the RY 2022-23 is not submitted.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	AR not submitted till inspection.	Mining Engineer & Manager - Sh G R Nagaraja Geologist - Girish A Patil	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	AR not submitted till inspection.	Already Exploited & Abandoned : 71.437HA Covered under Current working : 3.642 HA Reclaimed /Rehabilitated : 21 HA Waste Dump : 0.255 HA	As per AR 21-22
9d	Scrutiny of Annual return on afforestation	AR not submitted for the year 2022-23	AR not submitted for the year 2022-23	4000 Nos. with 75% survival rate as per AR 2021-22
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)		AR not submitted for the year 2022-23	

9f	Scrutiny of Annual return on ROM stock and/or graded ore	Al2O3 40-45% : 8702.585 MT 45-50% : 5762.105 MT	As per AR 21-22
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex Mine Price- Al2O3 40-45% - Rs.675.19, 45-50% - Rs.855.43 Sale Value- Al2O3 40-45% -Rs.142623314 Qty- 211235.330 Al2O3 45-50% - Rs.17615263 Qty- 20592.390 Cost of Production- Rs.609.95	AR 21-22
9h	Scrutiny of Annual return on fixed assets	Plant & machinery Rs 504036.00 Own capital Rs 128700000.00	As per AR 2021-22
9k	Scrutiny of Annual return on mining machineries	Crusher 120TPH 2No W Loader 1.60CUM 2No Hyd Bach hoe 0.90CUM 8 No Tipper 3.60CUM 10No Water Tanker 8000.0 L 4 No	As per AR 2021-22

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

Date :

(NARESH KUMAR KATARIYA)

Indian Bureau of Mines