

**INDIAN BUREAU OF MINES**  
**MINERALS DEVELOPMENT AND REGULATION DIVISION**  
**RMP Inspection Report**  
**Goa Regional Office**

- (i) Name of the Inspecting Officer and ID No. : **(K07) KRISHNENDU CHATTERJEE**
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine Official with Designation : S/Shri G.R Nagaraja- Mines Manager cum Mining Engineer, Girish Patil -Geologist
- (iv) Date of Inspection : 26.10.2024
- (v) Prev. inspection date : 17.04.2023

**PART-I: GENERAL INFORMATION**

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1. (a) **Mine Name** : **GIRGAON**
- (b) IBM Registration Number under rule 45 of MCDR, 1988 : IBM/778/2011
- (c) Mine code : 07MSH13008
- (d) Type of Working (Opencast, Underground) : Opencast
- (e) Category (Fully Mechanized, Others or Manual) : Cat. A, Fully Mechanized
- (f) Captive/ Non captive : Non-captive
- (g) Postal Address
- Village : GIRGAON
- Taluk/Mandal : SHAUWADI
- District : KOLHAPUR
- Pin code : 415101
- State : MAHARASHTRA
- Post office : YELWANJUGAI
- Nearest police station : SHAUWADI
- Nearest Railway station : BELGAUM
- 2 Address for correspondence : BHARTESH CONSTRUCTION COMPANY  
Shop No-34/35, Corp. Complex  
Goaves, Hindwadi, BELGAUM  
KARNATAKA 590011
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3	(a)	Total Lease Area (Ha) with breakup of Non-forest and forest land	:	140.20 (Non-Forest)
	(b)	Date of Grant of Mining Lease	:	08.12.2000
	(c)	Date of Execution	:	08.12.2000
	(d)	Date of opening of Mine	:	20.12.2002
	(e)	Date of expiry	:	07.12.2030; as per ML deed.
4		Mineral(s) granted in lease and proved for mining	:	Bauxite
5	(a)	Name of the lessee, Address, phone, email and fax number	:	BHARTESH CONSTRUCTION COMPANY Shop No-34/35, Corp. Complex Goaves, Hindwadi, BELGAUM KARNATAKA Ph: (off) 0831-2427187 Fax: 0831-2429968 Email Id - giragaonmines@gmail.com
	(b)	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	:	Shri Surendra Tavanappa Kodachwad Proprietor of M/s Bhartesh Construction Company. Shop No-34/35, Corp. Complex Goaves, Hindwadi, BELGAUM KARNATAKA 590011 Date of Appointment - 08.02.2008
	(c)	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	:	Mr. Prakash Kulkarni. Shop No-34/35, Corp. Complex Goaves, Hindwadi, BELGAUM KARNATAKA 590011 Email: giragaonmines@gmail.com
	(d)	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	:	Shri G.R Nagaraja Girgaon Bauxite Mine. at Post YELWANJUGAI, Taluka SHAUWADI, Dist. KOLHAPUR, Maharashtra 415101 Email: giragaonmines@gmail.com Date of appointment: 13.06.2018
	(e)	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	:	Shri G.R Nagaraja Girgaon Bauxite Mine. at Post YELWANJUGAI, Taluka SHAUWADI, Dist. KOLHAPUR, Maharashtra 415101 Qualification: B.Sc. AMIE (MINING) Total Exp: more than 20 years. Email: giragaonmines@gmail.com Date of appointment: 13.06.2018
	(f)	Name of the Geologist, Qualification and total experience with Address, phone,	:	Shri Girish Patil Girgaon Bauxite Mine.

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	email, fax number and date of appointment in mine	at Post YELWANJUGAI, Taluka SHAUWADI, Dist. KOLHAPUR, Maharashtra 415101 Qualification: M.Sc.-Geology Total Exp: more than 15 years. Email: giragaonmines@gmail.com Date of appointment: 01.09.2013
6	Date of Approval of Mining Plan/Review of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	: Review of MP RMP/MECH-04 (MAH)/GOA/2019-20 Dated 07/02/2020 Period - 2020-21 to 2024-25  Modification in RMP RMP/MECH-04 (MAH)/GOA/2019-20-Vol I dated 02/06/2022 Period - 2022-23 to 2025-26

**PART - II: OBSERVATION/COMMENTS OF INSPECTING OFFICERS**

**Exploration:**

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal during 2023-24	Nil	
1b	Exploration over lease area for Geological axis 1 or 2.	G1 proposed	Exploration has been completed under G1 stage	G1: 140.20 Ha.
1c	Exploration Agency & Expenditure in lakh Rupees during the year	No proposal	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal	G1 achieved	
1e	Balance reserves as on <u>01.04.2024</u>		Total reserve: 1.023 million tonnes  As on 01.04.2024.	
1f	General remarks of inspecting officer on geology, exploration etc.	Deposit is mainly Float ore type upto depth of 5m; occurrences of Bauxite reef also has been established. The exploration is completed under G-1 stage. 107 nos. Trial		

Pits dug by the lessee in the ML area so far.

### Development:

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	Pit working proposed between N 1862800 to 1863200 & E 379600 to 379820.	N 1862900 to 1863250 & E 379700 to 379850.	Deviation in location was due to backlog handling of F.Y. 2022-23
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Benches only in ore proposed.	As per proposal.	Float ore working.
2c	Stripping ratio or ore to OB ratio	1:1.5	1:0.22	Not maintained due to more recovery of ore. Violation of rule 11(1) issued.
2d	Quantity of topsoil generation in m3	No proposal	Nil	
2e	Quantity of overburden generation in m3	180,000 m3	48,827 m3	BD: 2 tonnes/m3
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	During inspection, overall mine working and concurrent backfilling was observed lagging for the year 2023-24 w.r.t. approved proposal. Stripping Ratio was not maintained for the year 2023-24. OB to Ore Ratio proposed to be maintained at 1:1.50; whereas actual OB to Ore Ratio (in tonnes) is arriving to 1: 0.22 since actual recovery of Float Bauxite ore is more than proposal. Lessee advised to carry out fresh recovery study of the deposit. Violation of Rule 11(1) issued on 11.11.2024.		

**Exploitation:**

<b>Sl.No.</b>	<b>Item</b>	<b>Proposals</b>	<b>Actual work</b>	<b>Remarks</b>
3a	Number of pits proposed for production	Two nos. of pits proposed.	No change, working at Pit 5 and at Pit 6.	
3b	Quantity of ROM mineral production proposed	240,000 Mt	227,100 Mt	
3c	Recovery of salable/usable mineral from ROM production	40% proposed	Approx. 70% recovery achieved during F.Y 2023-24	Lessee advised to carry out fresh recovery study of the deposit.
3d	Quantity of mineral reject generation	No proposal	Nil	
3e	Grade of mineral reject generation and threshold value declared	No proposal	Not applicable	
3f	Quantity of sub-grade mineral generation	No proposal	Nil	
3g	Grade of sub-grade mineral generation	No proposal	Not Applicable.	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No proposal	Nil	
3j	Provision of drilling & blasting in mineral benches	No proposal	Nil	
3k	Provision of mining machineries in mineral benches	Hydraulic Excavator and Tippers Proposed	Hydraulic Excavator and Tippers	
3l	Whether height of benches in overburden and mineral suitable	3 Mts bench height proposed	Benche heights are maintained as per approved document.	Float ore mining upto the depth of mineralization.

	for method of mining proposed in MP/SOM				
3m	Total area covered under excavation/pits	65.46 Ha.	56.33 Ha.		Actual area utilizations are furnished as per the submitted AR of F.Y 2023-24.
3n	Ore to OB ratio for the pit/mine during the year	1:1.5	1:0.22		
3o	Total area put in use under different heads at the end of year	Total Area under mining: 65.46 Ha., Reclaimed area: 21.00 Ha.	Total Area under mining: 56.33 Ha., Reclaimed area: 21.00 Ha. Road and Infrastructure: 0.43 Ha.		Actual area utilizations are furnished as per the submitted AR of F.Y 2023-24.
3p	Production of ROM mineral during last five-year period, as applicable	2019-20: 240000 2020-21: 240000 2021-22: 240000 2022-23: 240000 2023-24: 240000 (in Mt)	2019-20: 238070 2020-21: 161600 2021-22: 167900 2022-23: 239950 2023-24: 227100 (in Mt)		
3q	General remarks of inspecting officer on method of mining etc.	Mechanised mining is being carried out by Opencast method. Benches are being maintained as per approved document. During inspection, Overall mine working and concurrent backfilling was observed lagging for the year 2023-24 w.r.t. approved proposal. Actual recovery (70%) of Float Bauxite ore is found more than proposal (40%). Lessee advised to carry out fresh recovery study of the deposit. Violation of Rule 11(1) issued on 11.11.2024.			

### Solid Waste Management-Dumping:

Sl.No.	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Separate disposal of OB waste proposed	Disposal of waste by backfilling.	No top soil or mineral reject generated during 2023-24.

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		by concurrent backfilling.		
4b	Location of topsoil, OB & mineral reject dumps	No proposal	Not applicable.	
4c	Number of dumps within lease area and outside lease area	No proposal	Nil	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No proposal	Not applicable.	
4e	Number of active & alive dumps	No proposal	Nil	
4f	Number of dead dumps	No proposal	Nil	
4g	Number of dumps stabilized	No proposal	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there	Proposed	Retaining wall and garland drains constructed along the downslope of the backfilled areas.	
4i	Length of Retaining wall or garland drain all along dump	Retaining wall- 60m	Retaining wall constructed 280m	Retaining wall constructed as per the proposal.
4j	Number of settling ponds	No proposal in FY 2023-24	4 nos. constructed so far.	
4k	Specific comments of inspecting officer on waste dump management.	The overburden/ waste generated is being utilized for concurrent backfilling of mined out areas. Retaining wall and garland drains constructed along the downslope of the backfilled areas to prevent wash off during monsoon.		

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**Solid Waste Management-Backfilling:**

Sl.No.	Item	Proposals	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Concurrent backfilling proposed.	Concurrent backfilling carried out at mined out areas.	Back filling is Being carried out after complete extraction of ore.
5b	Area under backfilling of mined out area	0.018 Ha.	0.018 Ha.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	No proposal	Nil	
5d	Total area fully reclaimed & rehabilitated	No proposal	Nil	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Concurrent backfilling is being carried out at mined out areas as per approved proposal.		

**Progressive Mine Closure Plan:**

Sl.No.	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.	Proposed.	Submitted for F.Y. 2023-24 along with AR.	
6b	Area available for rehabilitation (ha)	No proposal	Nil	
6c	Afforestation done (ha)	2.00 Ha. during 2023-24	3.67 Ha along the backfilled areas.	Including gap filing plantation
6d	No. of saplings planted during the year	4000 nos.	7460 nos. within the ML area in FY 2023-24.	
6e	Cumulative no. of plants	Not specified.	Apprx. 50,000 nos. saplings	

			planted along the backfilled areas.	
6f	Any other specific method of rehabilitation	No proposal	Nil	
6g	Cost incurred on watch & care during the year	1.00 lakhs	Rs. 1.9 lakhs as stated by the management representatives.	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D)	3.35 Ha.	5.41 Ha.	Concurrent backfilling
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Void filled by waste/tailings	No proposal	Not applicable	
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on the backfilled area	No proposal	Not applicable	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Not applicable	
6l	Compliance on reclamation and rehabilitation by backfilling (v) Any other specific means	No proposal	Not applicable	
6m	Compliance of Rehabilitation of waste land within lease (i) Afforestation	No proposal	Not applicable	
6n	Compliance of Rehabilitation of waste land within lease (ii) Area rehabilitated (ha)	No proposal	Not applicable	
6o	Compliance of Rehabilitation of waste land within lease (iii) Method of rehabilitation	No proposal	Not applicable	

6p	Compliance of Environmental monitoring (core zone & buffer zone)	Proposed.	Carried out on quarterly basis and parameters are found within the limit.
6q	General remarks of inspecting officer on PMCP compliance & progressive closure operations	Yearly PMCP report has been submitted.	

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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 & sizing.	Grade wise sorting & sizing through screening.	
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	Proposed for all +30% Al2O3	Dispatch reported for 40% to 45% Al2O3 and 45% to 50% Al2O3.	
7d	Any beneficiation process at mines	No proposal	Nil	Only Crushing of ore & Dry Screening of Float ore carried out.
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	No deviation i.r.o. Mineral conservation was observed during the inspection. Crushing and dry screening of Float ore has been carried out.		

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**Environment:**

Sl.No.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	Not Applicable	Working area of 2023-24 devoid of top soil.
8b	Concurrent use or storage of topsoil	No proposal	Not Applicable	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Not proposed	Not applicable since concurrent backfilling carried out.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Backfilling proposed.	Backfilling of mined out pits after complete extraction of ore.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposed.	Phased restoration of mined out land carried out by plantation over the backfilled areas.	21 Ha. of backfilled areas has been reclaimed so far.
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Plantation of local Spices	Apprx. 50,000 nos. saplings planted along the backfilled areas.	
8g	Survival rate	70 to 80%	Approx. 70%	
8h	Water sprinkling on roads to control airborne dust	Proposed.	Water Sprinkling on roads with three water tankers of 8KL each capacity.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Aesthetic beauty around the mining area is good.		

**Compliance of Rule 45:**

Sl.No.	Item	COMMENTS	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to Dec. 2024  A.R. Submitted up to 2023-2024	Date of submission of AR was 20.06.2024; Referred back AR submitted on 23.12.2024.

S.N.	Item	Proposals	Actual work	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer and Geologist appointed.	Mining Engineer cum Manager: Shri G.R Nagaraja.  Geologist: shri Girish patil.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Total Area under mining: 56.33 Ha., Reclaimed area: 21.00 Ha. Road and Infrastructure: 0.43 Ha.	No change.	
9d	Scrutiny of Annual return on afforestation	Yes	7460 nos. within the ML.	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	No Mineral Reject generation	Nil	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM stock: Nil Graded ore stocks: 40% to 45% Al203: 25764.150 tonnes. 45% to 50% Al203: 1654.105 tonnes	Actual was same at that time.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Sale values of 40% to 45% Al203: Rs. 727 / tonne.  45% to 50% Al203: Rs. 887 / tonne.	Some of the invoices were checked during inspection and sale value	

		Production Cost: given was found Rs. 782.27/ tonne correct.	
9i	Scrutiny of Annual return on fixed assets	Yes	Value of Fixed Assets has been reported.
9k	Scrutiny of Annual return on mining machineries	Excavator: 8 nos. Tippers: 8 nos. Wheel Loaders: 2 nos. Water Tanker: 3 nos. Crusher (120 TPH): 2 nos.	No change.

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<b>Details of violations observed during current inspection and compliance position of violation pointed out</b>						
Rule NO.	<u>Violation observed</u>			Rule NO.	<u>Show cause position</u>	
	Issued on	Compliance on	Issued on		Compliance on	
11(1)	11.11.2024	06.02.2025				

**(KRISHNENDU CHATTERJEE)**  
**Indian Bureau of Mines**