

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

**MCDR inspection REPORT**

**Goa regional office**

**Mine file No :** MAH/KLP/BX-14/GOA

**Mine code :** 07MSH13017

- (i) Name of the Inspecting : **P01** ) **PREM PRAKASH**  
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : **SHRI V.K.S.CHAUHAN, MINES MANAGER**  
Official with  
Designation
- (iv) Date of Inspection : 07-MAY-18
- (v) Prev.inspection date : 21-SEP-17

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **DHANGARWADI**
- (b) **Registration NO.** : **IBM/935/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :  
State : MAHARASHTRA  
District : KOLHAPUR  
Village : DHANGARWADI  
Taluka : DHANGARWADI  
Post office : SHAHUWADI  
Pin Code : 416514  
FAX No. : 02320-215301  
E-mail : mainak\_c@adityabirla.com  
Phone : 02320-202072
- (f) Police Station : SHAHUWADI
- (g) First opening date : 27-APR-09
- (h) Weekly day of rest : SUN
2. Address for : HINDALCO INDUSTRIES LIMITED  
correspondance : DHANGARWADI MINES, SHAHUWADI 416 212  
KOLHAPUR DISTRICT, MAHARASHTRA
3. (a) Lease Number : MSH0371
- (b) Lease area : 41.8
- (c) Period of lease : 50
- (d) Date of Expiry : 04-MAY-58
4. Mineral worked : BAUXITE Main

## 5. Name and Address of the

Lessee : HINDALCO INDUSTRIES LIMITED  
 Ahura Centre, 1st Floor, B  
 wing, MC Rd Andheri  
 (East), Mumbai MAHARASHTRA  
 MUMBAI (SUBURBAN)  
 MAHARASHTRA  
 Phone: 022-66917000  
 FAX : 022-66907001

Owner : A.K.AGARWALA  
 AHURA CENTRE, 1ST FLOOR, B  
 WING, MC ROAD, ANDHERI  
 (EAST), MUMBAI MAHARASHTRA  
 MUMBAI (SUBURBAN)  
 MAHARASHTRA  
 Phone: 022-66917000  
 FAX : 022-66907001

Agent : MAINAK CHAKRABORTY  
 HINDALCO INDUSTRIES LTD  
 P.O. RADHANAGARI, KOLHAPUR-  
 MAHARASHTRA KOLHAPUR  
 MAHARASHTRA  
 Phone: 02321-202133  
 FAX :

## Mining Engineer

Name : V.K.S. Chauhan, Full Time  
 Qualification : B.Tech. Mining  
 Appointment/ : 01-APR-13  
 Termination date

## Geologist

Name : U,V.PAWAR, Full Time  
 Qualification : M.Sc. Geology  
 Appointment/ : 26-MAR-12  
 Termination date

## Manager

Name : VIJAYKUMAR SINGH CHAUHAN  
 Qualification : B. Tech. Mining with FCC  
 Appointment/ : 01-APR-13  
 Termination date

6. Date of approval of Mining	:	Modif.of approved Mining Plan	25-MAR-09
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	02-DEC-13
		Modif.approved Mining Scheme	12-MAR-15
		MP modif under 17(3) MCR 2016	08-JUL-16
		MP review under 17(1) MCR 2016	01-DEC-17

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NIL	NA	
1b	Exploration over lease area for geological axis 1 or 2	03 core BHs	03 core BHs	In order to confirm ore, 33 exploratory pits were also made in the year 2017-18.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	--	Inhouse; 56,100 Rs.	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	NA	
1e	Balance reserve as on 01/04/20	--	--	About 0.4 Mill. Tonnes
1f	General remarks of inspecting officers on geology, exploration etc	-	-	Satisfactory

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Lat N 16054' 18.5''- 16054' 29.5'' 16054' 18.5''- 16054' 26.1'' Long E73050' 40''- 73050' 58'' 73050' 40'' - 73051' 7''	Lat N 16054' 18.5''- 16054' 28.2'' 16054' 18.5''- 16054' 25'' Long E73050' 40''- 73050' 48'' 73050' 40'' - 73051' 4''	Almost as per approved mining plan
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	yes	Bauxite - 1 Top Soil -1 OB - 1 Avg.Ht in Bx. 5- 6 Mtr.	

2c	Stripping ratio or ore to OB ratio	1:0.1	1:0.15	Te : M3
2d	Quantity of topsoil generation in m3	--	40498.25 m3	Utilized simultaneously over Back filled area into the mined out pits.
2e	Quantity of overburden generation in m3	33006 m3	43855 m3	Utilized simultaneously for Back filling of mined out area
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Mostly float ore working being carried out

#### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2 Pits	2 Pits	
3b	Quantity of ROM mineral production proposed	303565 T	291705 T	As reported during inspection; A.R. was not submitted for FY 2017-18 till the date of Inspection, due date of submission is before 1st July.
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	
3d	Quantity of mineral reject generation	NIL	NIL	
3e	Grade of mineral rejects generation and threshold value declared.	NIL	NIL	
3f	Quantity of sub grade mineral generation.	-	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	Yes	Yes	100 mm dia drill hole m/c used & NONEL technique used for Blasting
3k	Provision of mining machineries in mineral benches	yes	yes	HEMM deployed in mineral Benches as per proposal.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	yes	yes	
3m	Total area covered under excavation/pits	11.0 Ha.	About 11 Ha.Cumulative	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.1	1:0.15	Te : M3
3o	Total area put in use under different heads at the end of year	Area of excavation: 28.09 Waste Dump: 1.73 Infrastructure : 0.5 Road : 0.75 Others : 0.13	Area of excavation: 24.31 Ha Waste Dump: 0.0 Ha Infrastructure: 0.5 Ha Road : 0.75 Others : 0.13 Ha	About 13 Ha. area fully reclaimed and rehabilitated
3p	Production of ROM mineral during the last five year period as applicable	2013-14 - 550000 2014-15 - 452586 2015-16 - 501043 2016-17 - 382519 2017-18 - 303565	2013-14 - 429797 T 2014-15 - 406500 T 2015-16 - 389737 T 2016-17 - 362270 T 2017-18 - 291705 T	te

3q General remarks of inspecting officers on method of mining etc.

Mechanized open-cast mining being followed

### Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	yes	The top soil and OB stacked temporary in dumps is re-handled and used for mine restoration simultaneously.	Presently mining activities carried out to float bearing area,
4b	Location of topsoil, OB and mineral reject dumps	--	There is no such dumps are made during the year, all the soil and reject or waste (after recovering sub grade by screening) are being utilised for backfilling of mined out voids	The backfilled areas are being scientifically vegetated through afforestation.
4c	Number of dumps within lease area and outside of lease area	Lease area = NIL Non Lease area = NIL	Lease area = NIL Non Lease area = NIL	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	--	NA	
4e	Number of active and alive dumps.	Nil	Nil	
4f	Number of dead dumps.	NIL	NIL	
4g	Number of dumps established.	NIL	NIL	
4h	Whether Retaining wall or garland drain all along dumps are there.	--	NA	
4i	Length of Retaining wall or garland drain all along dumps	--	NA	
4j	Number of settling ponds	--	--	The rain water is channelized towards existing settling tanks and silt check dams.

4k	Specific comments of inspecting officer on waste dump management	No surface dumping being carried out. OB and Topsoil being used for reclamation and rehabilitation of worked out area and Plantation.
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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.	yes	The area is taken up for restoration only after removal of entire bauxite	
5b	Area under backfilling of mined out area	4.41 Ha	About 5 Ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Full Utilization of top soil	Fully Utilized	
5d	Total area fully reclaimed and rehabilitated	--	13 Ha. Cumulative area reclaimed	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Back filling being done after extraction of mineral

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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).	--	Not submitted for 2017-18 till the date of inspection	Due date of submission is before 1st July.
6b	Area available for rehabilitation (ha) .	4.41 Ha	5 Ha.	
6d	No. of saplings planted during the year	4500No.s	9000 No.s	
6f	Any other method of rehabilitation	Backfilling with subsequent plantation.	Backfilling with subsequent plantation.	
6g	Cost incurred on watch and care during the year	Rs. 55,000	Rs. 2,21,653	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	(800m * 125m * 0.37m)	(800m * 125m * 0.4m)	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	33006.72 CUM	84353.47 m3	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	4.41 Ha	5 Ha.	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Compliance of Environmental monitoring.	The monitoring is carried out as per the schedule through MOEF approved third party and reports are maintained.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Complied



## Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	yes	yes, 45% - 50 % A1 203  40% -45 % A12 O3	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	ROM has been sorted by crushing/screening
7c	Different grade of mineral sorted out at mines.	--	45% - 50 % A1 203  40% -45 % A12 O3	
7d	Any beneficiation process at mines	Dry Screening	Dry Screening	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Float ore being sorted out as ROM. grade wise sorting has been carried out by crushing/screening

## Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	yes	yes	
8b	Concurrent use or storage of topsoil	yes	yes	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	--	All the OB & waste are being utilised for backfilling of mined out voids	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Use of overburden, soil & waste for backfilling of mined out area.	complied	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	yes	Restoration / Reclamation of the mined pits are being done as per plan.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	--	Mined out area are scientifically afforested. For this soil, manure, vermi compost, bagasse and press-mud being used to improve the condition of plantation base.	
8g	Survival rate	--	About 90%	Care has been taken to plant mostly local flora along with some exotic species
8h	Water sprinkling on roads to control airborne dust	yes	Water tanker being used for dust suppression	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			There is no permanent dumps are available at mines. All the soil and waste (after recovering sub grade ore by screening) are being utilized for backfilling of mined out voids and The backfilled areas are being scientifically vegetated through afforestation.

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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	--	Being submitted; A.R. was not submitted for FY 2017-18 till the date of Inspection, due date of submission is before 1st July.	Scrutiny of Annual return submitted for year 2016-17 was carried out during previous inspection of mine on 21-09-2017.

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

Violation observed		Show couse position	
Rule NO.	Issued on Compliance on	Rule NO.	Issued on Compliance on

Date :

(PREM PRAKASH)

Indian Bureau of Mines