

## MCDR INSPECTION REPORT

### 1.0 GENERAL

SN	Particulars	Details
1(a)	Name of the Mine	Asota-Mewasa Bauxite Mine
1(b)	Name of Inspecting Officer	Sanjay M. Girhe
1(c)	Designation of Inspecting Officer	Sr. Mining Geologist
1(d)	Date of Inspection	23.10.2018
1(e)	Type of Inspection	Review of Mining Plan/Start Ratings/MCDR,
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	682.3892 ha.
3	Mine code	07GUJ07002
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/902/2011
5	Name of the lessee, Address, phone, email and fax number	M/s. Bombay Minerals Limited Jamnagar Dwarka Highway Opp. Ashok Petrol Pump P.O-Khambhalia, District- Devbhumi Dwarka Ph.no.02833-234053,235370,236893
6	Village	Mewasa, Mota-Asota,Ran,Habardi & Khakharda
7	Taluka/Mandal	Kalyanpur
8	District	Devbhumi Dwarka
9	Pincode	361315
10	State	Gujarat
11	Post office	Mewasa
12	Nearest police station	Bhatia
13	Nearest Railway station	Bhatia
14	Date of Grant of Mining Lease	31.01.1958
15	Date of Execution	09.08.1958
16	Date of opening of Mine	09.08.1958
17	Date of first Renewal, if applicable and its period & expiry	First renewal from 08.08.1977 for 20 Years
18	Date of second Renewal, if applicable and its period & expiry	Date of second Renewal, 06.08.1997 for 20 Years
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Form-J, dtd 06.08.1997 lease period valid up to 31.03.2030
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Hemul Shah (Mob no. 9820911707) 302/303, Rahul Enclave,A-Wing, Saibaba Nagar, Borivali-West,Mumbai- 400 092
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri Gunanand Roy w.e.f 24.08.2017 Jamnagar Dwarka Highway Opp. Ashok Petrol Pump,P.O-Khambhalia, District- Devbhumi Dwarka(Gujarat),Mobile- 9998945910
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Shri Kishor Kumar Choudhary w.e.f 15.02.2009 Jamnagar Dwarka Highway,Opp. Ashok Petrol Pump P.O-Khambhalia, District- Devbhumi Dwarka(Gujarat), Mobile- 9925204390
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Shri Kishor Kumar Choudhary w.e.f 15.02.2009 (B.E. Mining Engg) Jamnagar Dwarka Highway, Opp. Ashok Petrol Pump, P.O-Khambhalia, District- Devbhumi Dwarka(Gujarat), Mobile- 9925204390 Total experience:- 10 Years
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Mining Operation is temporarily suspended w.e.f 15.03.2018 for the reason of Lack of demand of Bauxite and Non-Availability of desired grade of material to be used in our captive plant

25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	--
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	Mining Scheme with approved letter no.682(23)(MS-425)/2008 MCCM (N) UDP and letter dated 01.01.2014, Period -2013-14 to 2017-18
27	Mineral(s) granted in lease and proved for mining	Bauxite
28	Method of Mining(Open cast, Underground)	Open cast Working
29	Category (Fully Mechanised, Others or Manual)	Mechanised-A (OTFM)
30	Captive/Non Captive	Captive

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. –

### Exploration

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
1a	Backlog of previous year	In approved mining scheme 8 trail pits was proposed for exploration	Lessee has carried out all 8 pits which was proposed for year 2017-18	Exploration is done by putting exploratory trial pits in the lease area.
1b	Exploration over lease area for Geological axis 1 or 2.	G1 & G2 Level	484.28 Hect.	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Lessee itself explore the area	Lessee itself explore the area	
1d	Balance area to be explored to bring Geological axis in 1 or 2		198.10 Hect.	
1e	Balance reserves as on 01.04.2018	Proved (111):- 45290852 MT Probable(122):- 8152605 MT Resources (221):- 7637235MT Resources (333)- :2412550 as on 01.04.2017	Proved (111):- 44273514 MT Probable(122):- 8152605 MT Resources (221):- 7637235MT Resources (333)- :2412550 as on 01.04.2018	
1f	General remarks of inspecting officer on geology, exploration etc.	Sufficient exploration have been proposed in Review of mining plan for the period 2018-19 to 2022-23 in compliance with the Rule 12(4) of MCDR,2017		

### 2.0 Development

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
2a	Location of development w.r.t. lease area	1.Karamkund Block- F5-F5' 2.Khatladhar & Suradhar – K5-K5' 3.Khakharda-II M5-M5'	1.Karamkund Block- F5-F5' 2.Khatladhar & Suradhar – K5-K5'	Production achieved only 1017338 MT as against proposal 3939878 MT
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	1.Karamkund Block- Bauxite- Two bench 2. Khatladhar & Suradhar Block- Bauxite-Two Bench 3.Khakharda-II – One bench	1.Karandhar block – One bench 2.Khatladhar & Suradhar Block- One Bench	
2c	Stripping ratio or ore to	1:0	1:0	

	OB ratio			
2d	Quantity of topsoil generation in m3	Not proposed	Nil	
2e	Quantity of overburden generation in m3	Not proposed	Nil	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	Mine development not carried out in systematic & scientific manner as the numbers of mine pits have been opened in haphazard manner.		

### **3.0 Exploitation**

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
3a	Number of pits proposed for production	1.Karamkund Block- 3 Pit 2.Khakharda-II Block- 7 Pit 3.Khatladhar & Suradhar -3 Pit	1.Karamkund Block- 3 Pit 2.Khatladhar & Suradhar -3 Pit	
3b	Quantity of ROM mineral production proposed	3939878 Tonne	1017338 Tonne	
3c	Recovery of salable/usable mineral from ROM production	95 %	100% (with proper Blending)	
3d	Quantity of mineral reject generation	No mineral reject generated	NIL	
3e	Grade of mineral reject generation and threshold value declared	As per threshold Value Al <sub>2</sub> O <sub>3</sub> 30% & more	As per threshold Value Al <sub>2</sub> O <sub>3</sub> 30% & more	
3f	Quantity of sub-grade mineral generation	Not Proposed	Nil	
3g	Grade of sub-grade mineral generation	Not Proposed	Nil	
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	Not proposed	Nil	
3j	Provision of drilling & blasting in mineral benches	Jack hammer (RH 658/42) - 14 Compressor – 5	Jack hammer (32mm/Atlas Copco) -02 Compressor – 02	
3k	Provision of mining machineries in mineral benches	Excavator- 08 Tippers - 15	(i) Excavator –Tata Hitachi 03 (ii) (JCB)- 02 (iii) Dumper- 09 (iv) Water Tanker- 01	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Maximum bench height will be kept as 6 m. The width of bench will be kept as 10m.	Lessee kept maximum 6 m height of bench	
3m	Total area covered under excavation/pits	Proposed during approved plan period 25.71 ha.	7.37 ha.	
3n	Ore to OB ratio for the pit/mine during the year	1: 00	1: 00	
3o	Total area put in use under different heads at the end of year	Pit- 277.6952 ha. including Waste/reject, Others etc.	Pit- 183 ha. including Waste/reject, Others etc.	
3p	Production of ROM mineral during last five-year period, as applicable	Yr-(2013-14)-3917728 MT Yr-(2014-15)-3975458 MT Yr-(2015-16)-3930010 MT Yr-(2016-17)-3956000 MT	Yr-(2013-14)-1998742 MT Yr-(2014-15)-1839964 MT Yr-(2015-16)-1839940 MT Yr-(2016-17)-1839013 MT	

		Yr-(2017-18)-3939878 MT	Yr-(2017-18)-1017338 MT	
3q	General remarks of inspecting officer on method of mining etc.	Mining was carried out by conventional method by mechanised means by adopting shallow hole drilling & blasting as and when required.		

#### **4.0 Solid Waste Management-Dumping**

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	OB and waste generation during the mining scheme period will be backfilled in EW part of the mined out area	In the year 2017-18 there is not generated OB & top soil.	
4b	Location of topsoil, OB & mineral reject dumps	No proposals	NA	No OB/Top Soil proposed in this year
4c	Number of dumps within lease area and outside lease area	No proposals	NA	No proposal of any external dumps
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No proposals	NA	
4e	Number of active & alive dumps	No proposals	NA	
4f	Number of dead dumps	No proposals	NA	
4g	Number of dumps Stabilised	No proposals	NA	
4h	Whether Retaining wall or garland drain all along dumps are there	No proposals	NA	No any external dumps proposed and generated
4i	Length of Retaining wall or garland drain all along dump	No proposals	NA	
4j	Number of settling ponds	No proposals	NA	
4k	Specific comments of inspecting officer	Thin layer of top soil encountered in the lease area which proposed to be scrapped & generated soil shall be utilized for plantation.		

#### **5.0 Solid Waste Management-Backfilling**

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	1.2784 ha. Area proposed to be backfilled	1.2784 Ha achieved during the year	
5b	Area under backfilling of mined out area	1.2784 ha.	1.2784 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	9.1822 ha. Proposed during plan period	0.95 ha.	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Nil		

#### **6.0 Progressive Mine Closure Plan**

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
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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.	As per proposal submitted	PMCP report in the year 2017-18 under rule 26 (2) annual report Submitted							
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	No Proposal	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) 1.2784 ha ii) 1.2784 ha. iii) 0.1500 ha. iv) 24.4316 ha v) Fencing-100 m	i) 1.84 ha. ii) 1.84 ha. iii) 0.18 ha. iv) NIL v) Fencing-500m							
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	300 sapling	1500 sapling planted on backfilled area. a) Backfilling with plantation b) plantation in pit floor c) water reservoir in exhausted pit							
6e	Compliance of Environmental monitoring (core zone & buffer zone)	<table border="1"> <tr> <td>Ambient air quality</td> <td>One</td> </tr> <tr> <td>Water Quality</td> <td>One</td> </tr> <tr> <td>Noise Level survey</td> <td>One</td> </tr> </table>	Ambient air quality	One	Water Quality	One	Noise Level survey	One	Ambient Air Quality Monitoring done Quarterly once in year(Except Monsoon Season) Water analysis done quarterly once in a year Noise measurement done quarterly once in a year (Except monsoon Season)	
Ambient air quality	One									
Water Quality	One									
Noise Level survey	One									
6f	General remarks of inspecting officer on PMCP compliance & progressive	PMCP report is being sent by the lessee in stipulated time showcasing the works carried out on env. Protective measures								

## **7.0 Mineral Conservation**

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Proposal made for manual sorting and sizing	Grade-wise sorting and sizing by manually	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual	Manual	
7c	Different grade of mineral sorted out at mines	Manual	Manual	

7d	Any beneficiation process at mines	Only manual sorting and sizing	Only manual sorting and sizing	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Mineral conservation is being practised by way of utilizing mineral up to its threshold value i.e. >Al <sub>2</sub> O <sub>3</sub> -30% as Non Plant Grade Bauxite (NPG)		

## 8.0 Environment

SN	Item	Proposals (2017-18)	Actual work (2017-18)	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No Proposal	Nil	In some part of area top soil encountered & proposed to use for plantation purpose.
8b	Concurrent use or storage of topsoil	No Proposal	Nil	Top soil has used whenever its produced for plantation.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No proposal for external dump of overburden and waste rock	Nil	No external dumps are proposed
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Exhausted pit converted into water reservoir	Achieved as per proposal In the year 2017-18	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Part of the mineral exhausted pit to be backfilled and remaining part to be converted into water reservoir	Part of the mineral exhausted pit to be backfilled and remaining part to be converted into water reservoir	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Plantation proposed on backfilled land & in statutory barrier. The species Neem, Gulmohar and other local species proposed to be planted.	Local species has been planted on the backfilled area and post plantation care such as watering and manuring etc. Being done. selection of species is being carried out in consultation with local forest department sihar nursery at Khambhalia	
8g	Survival rate	50%	65%	Proper care and maintenance survival rate increased
8h	Water sprinkling on roads to control airborne dust	Water to be sprinkled on the haul road to suppress the dust being getting airborne	Mobile water tankers have been deployed for the purpose.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines are	Plantation carried out in the mining lease area is not that much satisfactory? Due scarcity of water in the area survival rate appears to be very low.		

### 9.0 Compliance of Rule 45

S.N.	Item	COMMENTS	Remarks
	Status of submission of Monthly and Annual returns	M.R. Submitted upto –October-2018 A.R. submitted upto- Year 2017-18	

S.N.	Item	Details GIVEN in A.R.	Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Yes, it is given	Shri Kishor Kumar Choudhary w.e.f 15.02.2009 (B.E. Mining Engg)	During the inspection it was advised to Mine representative to submit the AR & MR correctly for correct cost of production & Ex mine price as per the guidelines in future.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Yes, it is given	Pit- 183 ha. including Waste/reject, Others etc.	
9d	Scrutiny of Annual return on afforestation	Yes, it is given	1500 sapling planted on backfilled area. d) Backfilling with plantation e) plantation in pit floor	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	NA	NA	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Yes, it is given	Details of ROM stocks and/or graded ore are given in Annual Return of 2017-18	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Yes, it is given	Details of sale value, Ex-mine price & production cost are given in AR 2017-18	
9i	Scrutiny of Annual return on fixed assets	Yes, it is given	Nil	
9k	Scrutiny of Annual return on mining machineries	Yes, it is given	i) Excavator –Tata Hitachi 03 (ii) (JCB)- 02 (iii) Dumper- 09 (iv) Water Tanker- 01	

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

*Based on the last inspection carried out on 28.09.2017, violation of rule 11(4) & 27(1) of MCDR,2017 were pointed out and due to non-compliance of these violation, mine was suspended on 11.09.2018. Current inspection was carried out in connection with examination of Review of Mining & evaluation of Start Ratings Template. During inspection, no violations were pointed out as mine was suspended and also temporarily discontinued from 15.03.2018.*

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