

## INSPECTION REPORT

## 1.0 GENERAL

S.No.	Particulars	Details
1(a)	Name of the Mine	<b>Avariyar-II Bauxite Mine (330/P)</b>
1(b)	Name of Inspecting Officer & Designation	Shri Naman Ekka, (SMG)
1(c)	Accompanying Mines Representatives	Mr. Gunanand Roy (Owner Representative)
1(d)	Type of Inspection	MCDR/Star Rating
1(e)	Date of Inspection	09.01.2023
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	50.18 Hect (Non-Forest land)
3	Mine code	<b>07GUJ07004</b>
4	IBM Registration Number under rule 45 of MCDR, 1988	<b>IBM/246/2011</b>
5	Name of the lessee, Address, phone, email and fax number	M/s.Orient Abrasive Limited. GIDC Industrial, Area Porbandar Mob: 9998945910 Email ID: orientkhambalia@gmail.com
6	Village	Mewasa
7	Taluka/Mandal	Kalyanpur
8	District	Devbhumi Dwarka
9	Pin code	360315
10	State	Gujarat
11	Post office	Mewasa
12	Nearest police station	Bhatia
13	Nearest Railway station	Bhatia
14	Date of Grant of Mining Lease	07.04.1981
15	Date of Execution	05.10.1981
16	Date of opening of Mine	01.02.2015 (Reopening Date)
17	Date of first Renewal, if applicable and its period & expiry	05.06.2000
18	Date of second Renewal, if applicable and its period & expiry	Not applicable
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Letter No.MCR/1580(O-54)/CHH1 dated on 04/08/2018 lease period valid upto 04/10/2031
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Manubhai Rathod Nr.Madhurma society, Dharmapur, Khambhalia- Jamnagar-361305
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri Gunanand Roy M/s.Orient abrasive Ltd. Jamnagar Dwarka Highway,Khambaliya-361305 District- Devbhumi Dwarka.(Gujarat) Mob : 9998945910 Email ID: orientkhambhalia@gmail.com
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Shri Jaydeep Paradava M/s.Orient abrasive Ltd. Jamnagar Dwarka Highway,Khambaliya-361305 District- Devbhumi Dwarka.(Gujarat) Mob : 9879352878 Email ID: orientkhambhalia@gmail.com
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Shri Jaydeep Paradava M/s.Orient abrasive Ltd. Jamnagar Dwarka Highway,Khambaliya-361305 District- Devbhumi Dwarka.(Gujarat) Mob : 9879352878 Email ID: orientkhambhalia@gmail.com
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Yes
25	Date of Approval of Mining Plan/Modified	Review of Mining plan was Approved on-13.04.2022 Letter No-

1/5542/2023	Mining Plan with five-year period and specific condition in approval letter, if any.	684(4)(1)/MP-396/2021-22/GNR Validity-2022-23 to 2026-27 for 5 year period.
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	-
27	Mineral(s) granted in lease and proved for mining	Bauxite
28	Method of Mining(Opencast, Underground)	Opencast Working
29	Category (Fully Mechanised, Others or Manual)	Category-A
30	Captive/Non Captive	Captive

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

### Exploration

S.No.	Item	Proposals (2022-23)	Actual work (2022-23)	Remarks
1a	Backlog of previous year	One Trial Pit	For the Plan Period 2017-18 to 2021-22 Total 05 trail pits have been proposed which have been Completed.	
1b	Exploration over lease area for Geological axis 1 or 2.	G1	G1 – 43.382 Ha. G2 – 3.6496 Ha. G3 – 3.1483 Ha.	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	By Lessee Itself	No Exploration done in 2021-22	
1d	Balance area to be explored to bring Geological axis in 1 or 2	G3 – 3.1483 Ha.	As Reported Two trial Pits have been done as proposed for year 2022-23	
1e	Balance reserves as on 01.04.2022 (in million tonnes)	( Balance Reserves as on 01.04.2021) 1.Proved(111) =3.258969 2.Probable(121)=0.36496 Total= 3.623929	( Balance Reserves as on 01.04.2022) 1.Proved(111) =3.253229 2.Probable(121)=0.36496 Total= 3.618189	
1f	General remarks of inspecting officer on geology, exploration etc.	Exploration activity has been being carried out as per Proposal.		

### 2.0 Development

S.No.	Item	Proposals (2022-23)	Actual work (2022-23)	Remarks
2a	Location of development w.r.t. lease area	S 185 to N 70 E 120 to W 150	Partially Achieved	
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Top Soil- one bench Top OB- one bench Bauxite- one bench	Top Soil- one bench Top OB- one bench Bauxite- one bench	
2c	Stripping ratio or ore to OB ratio	1:0.4	NIL	
2d	Quantity of topsoil generation in m3	12599 m3 (2021-22)	NIL	
2e	Quantity of overburden generation in m3	41995 m3 (2021-22)	NIL	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	Development is lagging as per proposal and production is also less. As reported it is due to the less market demand.		

### 3.0 Exploitation

S.No	Item	Proposals (2022-23)	Actual work (2022-23)	Remarks
3a	Number of pits proposed for production	During 2022-23, 03 Pits have been proposed.	At the time of inspection only Three Pits have been developed but Partly production has been done.	
3b	Quantity of ROM mineral production proposed (in tonnes)	524938 MT	5740 MT	Less Production due to poor market Demand
3c	Recovery of saleable / usable mineral from ROM production	High Grade Bauxite-10% (Al <sub>2</sub> O <sub>3</sub> >50%) Abrasive & Refractory grade Low grade Bauxite 90% (Al <sub>2</sub> O <sub>3</sub> >30%) cement & other Grade	100%(with proper blending)	
3d	Quantity of mineral reject generation	No Proposals	NIL	Entire ROM has been consumed with manual beneficiation & proper blending.
3e	Grade of mineral reject generation and threshold value declared	No Proposals	NIL	
3f	Quantity of sub-grade mineral generation	No Proposals	NIL	
3g	Grade of sub-grade mineral generation	No Proposals	NIL	
3h	Manual / Mechanised method adopted for segregating from ROM	Proposed Manual	Manual	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject.	No Proposals	NIL	
3j	Provision of drilling & blasting in mineral benches	Jack hammer drilling - 1 Rock Breaker-1	Hydraulic Rock breaker is deployed for breaking of insitu material	
3k	Provision of mining machineries in mineral benches	Excavator-03 Tipper-06 JCB-1 Water Tanker-1	Excavator-01 Tipper-01 JCB-01 Water Tanker-1	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	1 Bench of 5 m height proposed in Bauxite. 1 Bench of 1 m height proposed for Overburden.	Height of bench in ore-5 m. height of bench Overburden-1 m.	
3m	Total area covered under excavation/pits	41995 Sq.M	450 Sq.M	Less Production due to poor market Demand.
3n	Ore to OB ratio for the pit/mine during the year	1:0.4	NIL	
3o	Total area put in use under different heads at the end of year	Pit-13.0169 Ha Top Soil-NIL Waste/reject-0.1655 ha Mineral Storage-2.3155 ha Infrastructure & Road-1.8509 ha Plantation- 0.263 ha	Pit-0.045 Ha. Top Soil-NIL Waste/reject-NIL Mineral Storage- NIL Infrastructure & Road-NIL Plantation- 0.15 ha	
3p	Production of ROM mineral during last five-year period, as applicable	2017-18= 0.2775	2017-18= 0.028375	
		2018-19= 0.433000	2018-19 = 0.011115	
		2019-20= 0.521188	2019-20= 0.00252	

1/5542/2023	(in million tonnes)	2020-21= 0.523688	2020-21= 0.005945	
		2021-22= 0.524938	2021-22= 0.005740	
3q	General remarks of inspecting officer on method of mining etc.			

#### 4.0 Solid Waste Management-Dumping

S.No.	Item	Proposals (2022-23)	Actual work (2022-23)	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Concurrent use of OB top soil & Plantation proposed.	Concurrent OB & top soil used for Plantation.	
4b	Location of topsoil, OB & mineral reject dumps	OB generated during mining Plan period will be backfilled in SW part of the mined out area	Entire OB generated during mining Plan period has been backfilled in SW Part of the mined out area as well as utilised in road preparation work.	
4c	Number of dumps within lease area and outside lease area	Not proposed	Nil	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not proposed	NA	
4e	Number of active & alive dumps	Nil	Nil	
4f	Number of dead dumps	Nil	Nil	
4g	Number of dumps stabilized	Nil	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there	Nil	One garland drain constructed	
4i	Length of Retaining wall or garland drain all along dump	Nil	NIL	
4j	Number of settling ponds	Nil	Mining Pits is being utilised as settling ponds	
4k	Specific comments of inspecting officer			

#### 5.0 Solid Waste Management-Backfilling

S.N.	Item	Proposals (2022-23)	Actual work (2022-23)	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Full Extraction	No Back Billing Activity Started	Area not matured for backfilled due to less production during the reporting year 2021-22
5b	Area under backfilling of mined out area	NIL	NIL	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Top soil to be utilised on backfilled area.	Backfilled area & other plantation area.	
5d	Total area fully reclaimed & rehabilitated	NIL	NIL	Less production
5e	General remarks of inspecting officer on backfilling, reclamation etc.	No Backfilling activity has been carried out in 2021-22 & 2022-23 till December 2022.		

I/5542/2023

**6.0 Progressive Mine Closure Plan**

S.N.	Item	Proposals (2022-23)	Actual work (2022-23)	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 26 (2). Details should be given in the format as given in item No. 8.3 of PMCP (approved on last occasion,	Submitted	Yes, Submitted within time	
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 Proposals	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	(2021-22) i) 41995 Sq.M ii) 11626 Sq.M iii) 0.150 Sq.M (250 Sapling) iv) 30369 Sq.M v) 688 m Fencing	(2021-22) i) NIL ii) NIL iii) 0.150 Sq.M (265 Sapling) iv) NIL v) 450 m Fencing	Less production due to Poor market demand.
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	i)250 Saplings	i)265 Saplings Planted as per Proposal	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Proposed	Quarterly Environmental Monitoring Done	
6f	General remarks of inspecting officer on PMCP compliance & progressive	As reported PMCP compliance have been partially done.		

**7.0 Mineral Conservation**

S.No	Item	Proposals (2022-23)	Actual work (2022-23)	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area ( <b>in tonnes</b> )	Proposal made for manual sorting and sizing.	Grade –wise manual sorting and sizing.	Manual Sizing and sorting done
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual	Manual	
7c	Different grade of mineral sorted out at mines	Manually	Manually	
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	Grade wise Manual sorting and sizing is being done.		

S.No.	Item	Proposals (2022-23)	Actual work (2022-23)	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Proposal made for the separate removal and spreading of top soil on the backfilled area.	As per the proposal	
8b	Concurrent use or storage of topsoil	In approved MP soil was proposed to spread on backfilled area.	Partly Carried out	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposal for no external dump of overburden and waste rock	As per the proposal	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Proposal made for the backfilling of overburden/waste rock into the mined out pit.	As per the proposal	
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	As per the proposal	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Plantation will be done on backfilled land & in statutory barrier. The species Neem Gulmohar and other local species will be planted. One person will be deputed for post plantation care such as watering, manuring etc.	Local species has been planted on the backfilled area and post plantation care such as watering and manuring etc. Being done.	
8g	Survival rate	-	60%	
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			

**9.0 Compliance of Rule 45**

S.No.	Item	COMMENTS		Remarks
	Status of submission of Online Monthly and Annual returns	M.R. Submitted up to <b>Dec-2022</b> A.R. submitted up to <b>Year 2021-22</b>		
S.No.	Item	Details GIVEN in A.R	Observation of I/Officer /Actual reported in Returns	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	M.E.- Shri Jaydeep Paradawa Geologist - Shri Santosh Kaluskar	M.E.- Shri Jaydeep Paradawa Geologist - Shri Santosh Kaluskar	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. (Ha)	Covered under current (O/C) Workings – 13.61 Ha. Used for waste disposal – 0.165 Ha.	Covered under current (O/C) Workings – 13.61 Ha. Used for waste disposal – 0.165 Ha.	

1/5542/2023	9d	Scrutiny of Annual return on afforestation	Number of trees planted during the year – 265 Survival Rate – 60 %	Number of trees planted during the year – 265 Survival Rate – 60 %	
	9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Nil Mineral Reject Generation	Nil Mineral Reject Generation	
	9f	Scrutiny of Annual return on ROM stock and/or graded ore (Tonne)	ROM Stock – NIL (Closing Stock) Graded Ore – Cement - 274293.194 Abrasive - 3144.825 Refractory - 1772.175	ROM Stock – NIL (Closing Stock) Graded Ore – Cement - 274293.194 Abrasive - 3144.825 Refractory - 1772.175	
	9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex Mine Price – Cement – 1361.00 Abrasive – 678.00	Ex Mine Price – Cement – 1361.00 Abrasive – 678.00	
	9i	Scrutiny of Annual return on fixed assets	Value of Fixed Assets (in ₹) 135389784	Value of Fixed Assets (in ₹) 135389784	
	9k	Scrutiny of Annual return on mining machineries	BACK HOE FRONT END LOADER TRUCK WATER TANKER	BACK HOE FRONT END LOADER TRUCK WATER TANKER	

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

**1. 45(7) Of MCDR 2017**

**Naman Ekka**  
**Senior Mining Geologist**